OECD Rural Studies

Rural Policy Review of Colombia 2022

OECD

OECD Rural Studies

Rural Policy Review of Colombia 2022

BETTER POLICIES FOR BETTER LIVES

Please cite this publication as:
OECD (2022), *Rural Policy Review of Colombia 2022*, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/c26abeb4-en.

ISBN 978-92-64-49785-6 (print)
ISBN 978-92-64-82849-0 (pdf)
ISBN 978-92-64-96720-5 (HTML)
ISBN 978-92-64-34859-2 (epub)

OECD Rural Studies
ISSN 2707-3416 (print)
ISSN 2707-3424 (online)

Photo credits: Cover © Ministry of Agriculture and Rural Development of Colombia; © National Planning Department of Colombia.

Corrigenda to publications may be found on line at: www.oecd.org/about/publishing/corrigenda.htm.

Foreword

The successive shocks from the COVID-19 pandemic and Russia's large-scale aggression against Ukraine have had severe impacts on OECD rural regions. While rural regions make up approximately 80% of all territory in the OECD, accounting for almost all of the food, water, energy, minerals and other resources needed throughout the economy, they tend to be less diversified and more reliant on tradeable sectors than urban areas, which make them more vulnerable to disruptions in global value chains and increases in commodity prices. These shocks have come in the midst of ongoing structural transformations for rural communities including ageing and population decline as well as the green and digital transitions.

However, whilst these shifts and shocks present challenges they also provide distinct opportunities for rural regions to capitalise on their unique assets. Environmental assets, for example, can drive new growth opportunities, such as renewable energy and the bioeconomy, and also act as a magnet to attract new workers able to benefit from emerging shifts to remote or hybrid working.

Colombian rural regions (accounting for 88% of the territory) have significant untapped development opportunities. Colombia ranks as the second most biodiverse country in the world and the sixth in terms of water volume. Moreover, unlike many other OECD economies, Colombian rural regions are neither shrinking nor ageing. Rural regions also have significant ethnic and cultural diversity that could further drive growth opportunities. Yet, historic challenges have prevented the full potential of rural areas to be tapped, leading to persistent urban-rural inequalities across a number of well-being dimensions and undermining, in turn, social cohesion. These challenges include high informality of land tenure and land concentration, and low access to quality connectivity and services (education, health).

This report offers a framework of recommendations to mobilise rural assets and improve well-being of rural citizens in Colombia. It assesses trends, challenges and opportunities in rural Colombia and examines the country's rural development policy. The findings and recommendations are built on desk research and interviews over two study missions with a wide range of Colombian stakeholders, including national, regional and local authorities, representatives from civil society and the private sector, and academics. The report also benefits from input from peer-reviewers from Chile and Ireland.

The report highlights that addressing cross-cutting bottlenecks and mobilising the assets of rural Colombia requires a comprehensive national rural policy, co-ordinated by an inter-ministerial body to harmonise sectorial policies and prioritise rural needs in the national policy framework. The country has the building blocks in place for this new policy approach, including the Integral Rural Reform of the 2016 peace agreement.

This is the 13th Review of National Rural Policy conducted by the OECD and the first that applies both the OECD Principles of Rural Policy and the new OECD policy framework of *Rural Well-being: Geography of Opportunities*. The report was discussed at the 27th meeting of the Working Party on Rural Policy (WPRUR) in May 2022 and approved by the WPRUR [CFE/RDPC(2022)2/REV2] via written procedure in November 2022.

Acknowledgements

This publication was produced by the OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE), led by Lamia Kamal-Chaoui, Director, as part of the programme of work of the Regional Development Policy Committee (RDPC). This report was prepared by the Regional Development and Multi-level Governance Division (RDG) of the OECD, headed by Dorothée Allain-Dupré.

The report was conducted in close collaboration with the Ministry of Agriculture and Rural Development (MADR) and the National Planning Department (DNP) of Colombia. Special thanks are due to both Ministers of Agriculture and Rural Development, Cecilia Lopez and Rodolfo Zea Navarro (former), to both Directors of the DNP Jorge Ivan Gonzalez and Alejandra Botero (former) for their support. The Secretariat extends warm thanks to Alvaro Ortega and Angela Burbano from MADR, Fernando Henao, Lorena Prieto, Angelica Solano and Angie Contreras from the DNP and Adriana Mejia, Gloria Alonso and Juan David Saenz from the Colombian delegation to the OECD for the day-to-day co-ordination.

The report was drafted and co-ordinated by Andres Sanabria (Chapters 3, 4 and 6) and co-authored by Fernando Riaza (Chapter 2), Maximilian Reisch and Verena Weber from the OECD Directorate for Science, Technology and Innovation (Chapter 4), Marc Bournisien de Valmont (Chapter 4), Lorena Figueiredo from the University of Sao Paulo (Chapter 5) and David Freshwater from University of Kentucky (Chapter 6). The report was supervised by Jose Enrique Garcilazo, Head of the Regional and Rural Policy Unit in CFE. The process that led to the final version of this publication was directed by Nadim Ahmad, Deputy Director of CFE. Contributors from other OECD Secretariat members included Dalila Cervantes-Godoy (OECD Trade and Agriculture Directorate), Ana Moreno Monroy, Oscar Huerta Melchor and Eric Gonnard (CFE).

Special thanks are due to the peer reviewers who participated in missions and shared their expertise: Jose Luis Romero, former Chief Advisor of the Minister of Agriculture of Chile and Andrew Forde, Head of the Rural Strategy and Social Enterprise Unit, Department of Rural and Community Development of Ireland. We also extend thanks to Hanna-Mari Kuhmonen (Ministry of Agriculture and Forestry, Finland) and Josefina Montero (Ministry of Agriculture of Chile) for sharing their expertise on national rural policies. The Secretariat also thanks experts who attended and shared their know-how during the workshop on rural policy in Bogotá in February 2022, including Angela Maria Penagos (Andes University), Carlos Cordoba (RIMSP), Felipe Roa-Clavijo (Los Andes University), Juan Jose Perfetti (Fedesarrollo), Michelle Pennella (IFAD), Olga Lucia Acosta (CEPAL) and Santiago Perry (Corporación PBA).

The OECD is also grateful for comments and support received by a number of people and institutions in Colombia, who provided valuable comments during the OECD missions and detailed feedback on the report. They include members of the Agency for Rural Development of Colombia, Agrosavia, Asocaña, Association for Progressive Communications, Asofrucol, Asograsas, ASOTIC, BIAC, Cauca's Business Union Council, Cauca Regional Government, City Hall and Mayor of Popayan, the Chamber of Commerce of Cauca, the Chamber of Commerce of Dosquebradas, the Communications Regulatory Commission (CRC), Comfamiliar University Foundation, EAFIT, Fedepapa, Fenalco, Fenavi, Fundación Karisma, International Fund for Agricultural Development, Fusa Libre, the Ministry of Agriculture and Rural Development of Colombia, the Ministry of Environment and Sustainable Development of Colombia, the

Ministry of Information and Communication Technologies of Colombia, the Ministry of Transport of Colombia, the Ministry of Housing, City and Territory of Colombia, Misak Community, Mucho Colombia, Nasa Community, the National Land Agency of Colombia (ANT), the National Federation of Departments, the Presidencial Council for Stabilization and Consolidation, Risaralda Regional Autonomous Corporation, the National Training Agency (SENA), the Secretary of Competitiveness of Risaralda, the Secretary of Rural Development and Agriculture of Santa Rosa de Cabal, the Secretary of Agriculture of Risaralda, the Secretary of Rural Development of Dosquebradas, the Secretary of Social Development of Bélen de Umbría, the Colombian Farmers' Association (SAC), University Javeriana Cali, Special Administrative Unit for the Management of Restitution of Dispossessed Lands, Rural Agricultural Planning Unit, and the Open National University.

Lelsie Greenhow co-ordinated virtual meetings and missions, and Pilar Phillip led the publication process. Eleonore Morena copy-edited and formatted the report.

Table of contents

FIGURES

TABLES

BOXES

Abbreviations and acronyms

Agrosavia	Colombian Agricultural Research Corporation
ANT	National Land Agency
ADR	Rural Development Agency
CONPES	National Council for Economic and Social Policy of Colombia
CRC	Communications Regulation Commission
DANE	National Department of Statistics of Colombia
DNP	National Planning Department
FUA	Functional urban area
FARC	Revolutionary Armed Forces of Colombia
GDP	Gross domestic product
GVA	Gross value added
GVC	Global value chain
ICT	Information and communication technology
IRR	Integral Rural Reform of the 2016 peace agreement
ISP	Internet service provider
MADR	Ministry of Agriculture and Rural Development
MinTIC	Ministry of Information and Communication Technologies
PND	National Development Plan
PPP	Purchasing power parity
PES	Payment for environmental services
PDET	Development Programs with a Territorial Approach
R&D	Research and development
SNG	Subnational government
SME	Small- and medium-sized enterprise
SENA	National Training Service
TL2	Territorial Level 2
TL3	Territorial Level 3
UAEGRTD	Special Administrative Unit for the Management of Restitution of Dispossessed Lands
UPRA	Rural Agricultural Planning Unit

Executive summary

Assessment

Colombia experienced remarkable economic growth over the last two decades, almost doubling the size of its economy and growing nearly three times faster than the OECD average between 2000 and 2021. This growth helped Colombia record the sixth-highest reduction in regional inequalities in gross domestic product (GDP) per capita among OECD countries between 2008 and 2020. However, despite this progress, regional income inequalities remain the highest across OECD countries in 2020, with rural areas recording the highest monetary and multidimensional poverty rates.

Colombian rural areas are undergoing profound transformations. Agriculture is gradually reducing its weight in the national and rural economy. Despite still employing most rural workers (62%), the sector's share of national GDP declined by more than half over the past decades, from 14% in 1995 to 6% in 2020. Rural communities are also facing the increasing impacts of climate change (floods and long dry seasons) as well as challenges to adapt to the digital transition.

Against this backdrop, rural policies have also evolved over the past years. New planning instruments were developed to align national plans to local interests (e.g. Territorial Pacts and Development Programs with a Territorial Approach) and the ongoing Integral Rural Reform (IRR) of the 2016 peace agreement has provided building blocks for a place-based approach to rural development, but still needs further advancement in its implementation.

Despite these improvements, Colombia's rural policy framework still applies a narrow vision to rural development, mainly focused on primary activities, social assistance and security, as a legacy of an urban-centred development policy. The rural policy approach is mainly sectoral, characterised by low levels of coordination among ministries that develop rural policies, fragmented implementation of rural strategies at the local level, and national policies that still associate rural with agricultural development.

Rural regions in Colombia have significant untapped opportunities for sustainable and inclusive growth. Their population is on average younger than the OECD and contains one of the most diverse ethnic mixes in South America. Colombia is the second most biodiverse country in the world and the sixth in terms of volume of freshwater. Its rural regions also provide fertile land, a variety of minerals and strong potential for wind and solar energy. The country's polycentric territorial structure and local value chains of both traditional sectors and emerging ones (eco/ethno tourism or bio and renewable energy) can leverage these assets and provide new income sources for rural communities.

However, several historical structural challenges have undermined development and well-being standards in rural Colombia. These challenges include high rates of informal land tenure and land concentration, unfinished land restitution processes, violence in rural communities, poor transport infrastructure and low access to quality broadband, healthcare and education. The lack of rural information (e.g. untitled public lands or tertiary roads) coupled with low civil society participation in rural policy and weak capacity of local governments represent additional bottlenecks for effective policy responses and implementation.

Addressing the cross-cutting challenges and mobilising the variety of assets in rural regions will require a broader rural policy framework with better inter-ministerial co-ordination to harmonise sectoral policies, that can prioritise the main rural needs and better involve local actors in policy implementation. The country already has elements in place for this comprehensive approach, including the national sectoral plans set by the IRR and specific national policies to diversify the rural economy (e.g. sustainable tourism and energy transition) and support agriculture competitiveness (National Agricultural Innovation System). The government has also established strategies to address pressing rural challenges, including the development of a land use information system (the Multipurpose Cadastre, *Catastro Multipropósito*), the modernisation of the land restitution process and the elaboration of a national multimodal transport plan.

To attain greater well-being for rural communities and equal development opportunities across the country, the review identifies 15 recommendations structured around 3 key pillars: i) creating a long-term and comprehensive national rural policy focused on people's well-being, that harmonises the IRR with sectoral economic policies; ii) prioritising actions on key bottlenecks for rural development, with better alignment of national policies to rural characteristics and greater financial and human capacity to ongoing initiatives; and iii) improving the design and implementation of rural policy, supported by an inter-ministerial coordination body for rural policy and greater involvement of rural communities in policy implementation (see table below).

Key recommendations of the Rural Policy Review of Colombia

	Recommendation	Who
	Developing a comprehensive national rural policy that focuses on raising people's well-being	
1.	**Ensure policies across all levels of government make use of a consistent rural definition** that recognises the diversity of rural areas and acknowledges urban-rural linkages	National Department of Planning of Colombia (DNP) and National Department of Statistics of Colombia (DANE)
2.	**Establish an integrated rural information system** by accelerating the rural information projects that are underway	DNP, DANE and Ministry of Agriculture and Rural Development of Colombia (MADR) with the co-operation of other ministries
3.	**Create a comprehensive national rural policy** that focuses on the well-being of people and takes a cross-sectoral approach to rural development. This policy should harmonise the Integral Rural Reform (IRR) with other productive and transversal policies for rural development	Presidency, DNP, MADR and the national body co-ordinating rural policy
	Prioritising key bottlenecks for rural development to mobilise the rural potential	
4.	**Strengthen the implementation of transport projects for rural communities** by prioritising the connection of rural regions to the primary network and multimodal transport solutions, and increasing co-financing and partnership models for tertiary roads	Ministry of Transport with the support of DNP and sub-regional governments
5.	**Ensure the provision of high-quality broadband access in rural regions at affordable prices**, by providing legal certainty, reducing the burden of administrative procedures and fees, increasing transparency, amplifying the impact of current policies, leveraging mobile services and further involving local actors.	Ministry of Information Technologies and Communications of Colombia (MINTIC), Commission for Communications Regulation and regional governments
6.	**Enhance access to education and health in rural communities** by accelerating implementation of sectorial national plans with rural focus, reinforcing flexibility of national programmes, scaling up local initiatives and further supporting uptake of digital services and training for service professionals.	Ministry of Education, National Learning Service (SENA), Ministry of Health and DNP
7.	**Strengthen policies of land distribution, restitution and formalisation**, by prioritising financial and human resources to solve information gaps related to land, facilitating conditions to register the land and improving co-ordination efforts across spatial planning instruments to enabling the most adequate use of rural lands.	Presidency, DNP, MADR and its agencies (e.g. National Land Agency-ANT), the National Geographic Institute (IGAC) and the body co-ordinating rural policy
8.	**Clarify the level of autonomy and land constitution to ethnic groups** by augmenting transparency in the administrative process of land constitution and expansion, strengthening consensual decision-making in land claims and concluding the new national protocol on the right of prior consultation.	Presidency, MADR and its agencies, Ministry of Interior
9.	**Enhance law enforcement and involvement of local communities in land use management** to fight deforestation and promote environmental restoration	Presidency, Ministry of Interior, MADR and its agencies, and Ministry of Environment
	Improving the design and implementation of rural policy, supported by an inter-ministerial co-ordination body	
10.	**Create or adapt an existent inter-ministerial co-ordination body for rural policy** with presidential mandate to lead and monitor the comprehensive national rural policy and harmonise it with the IRR. Chile and Finland's inter-ministerial structure can be a guide for Colombia	Presidency, DNP
11.	**Promote bottom-up planning instruments** to identify local priorities across all types of rural regions, extending and improving existing co-ordination and planning instruments at the subnational level, including the articulation of Development Programs with a Territorial Approach (PDET) with other planning mechanisms	Presidency, DNP and national body co-ordinating rural policy
12.	**Reduce the complexity of rural policy delivery and monitoring** by creating a one-stop-shop at the regional level to harmonise the implementation of different policies for rural development	Presidency, DNP, national body co-ordinating rural policy
13.	**Expand staff and financial capacity-building strategies for regional and municipal governments**, with a differentiated approach	DNP in co-operation with subnational governments
14.	**Enhance community capital** to strengthen the involvement of civil society in rural policy and increase accountability and trust	DNP in co-operation with subnational governments and
15.	**Promote the formation of urban-rural partnerships** to attain cost-effective investments and economies of scale in local projects	DNP, MADR and Ministry of Housing, City and Territory

1 Assessment and recommendations

Assessment

Despite its urbanisation trend, Colombia still has a high population share in rural regions compared to OECD countries

While most of the population in Colombia live in metropolitan regions (57%), the country's share of the population living in non-metropolitan regions (hereinafter rural regions, 42.1% in 2021) is slightly higher than the OECD average (41.4%) and other OECD Latin American countries, e.g. Chile (30%) and Mexico (34.7%). This OECD regional classification allows determining the level of rurality at the regional scale to better measure socio-economic differences between different types of regions, across and within countries, and to recognise interactions and trends across different urban and rural places within them.[1] According to this, most Colombian municipalities are classified as rural (88%). For Colombia, it builds on the government's efforts of territorial categorisation at the sub-regional level.[2]

In the last two decades, Colombia's population has concentrated in large metropolitan regions but population growth in rural regions is high by international standards. While large metropolitan regions (e.g. Bogotá and Valle del *Aburrá,* among others) register the greatest population growth in the country (57% in 2000-21), Colombian rural regions have experienced higher population growth (28%) relative to the OECD average growth of both urban (13%) and rural (6%) regions. In recent years, Colombian rural regions close/with a small city have registered similar population growth rates to metropolitan regions, which reveals that this polycentric structure maintains over time.

The majority of Colombia's rural population is located within remote rural regions (16.9%), almost twice the level of concentration in these types of regions across the OECD (8.9%). Colombian regions with/near a small/medium-sized city make for the second greatest share of the rural population (14.2%), also above the share of OECD rural population living in these types of regions (7.8%). In contrast, the share of people living in large metropolitan regions (e.g. Bogotá) (36.3%) is still relatively lower than OECD countries (41.7%). This reveals the country's polycentric regional structure, with regions with/near a small/medium-sized city across the territory representing an asset for regional development, given their potential to unlock differentiated growth opportunities across urban poles based on synergies with their surrounding rural areas.

Colombia's development process needs greater focus on reducing urban-rural regional inequalities

Rural development policy has been historically associated with security, primary activities and social assistance (Machado, 1999[1]; UNDP, 2011[2]; World Bank, 2014[3]; DNP, 2015[4]). For many decades, the rapid urbanisation process in the country and the long internal conflict that mostly occurred in rural areas captured most of the policy agenda and priorities, preventing rural regions from mobilising their growth potential and unlocking new growth opportunities outside primary activities.

Over the last two decades, Colombia has experienced remarkable economic growth

Over the last two decades, Colombia has enjoyed remarkable economic stability and growth. Colombia's gross domestic product (GDP) grew an average of 3.8% per year between 2000 and 2020, almost doubling the size of its economy (90.9% total GDP increase), about twice the total average growth of the Latin American economy (49.7%) and almost 3 times the total economic growth across of the OECD average (36.0%).

Such economic growth has helped reduce unemployment rates (from 20% in 2000 to 13% in 2021) and income inequalities across the country. Colombia registered the sixth-greatest OECD drop in regional inequality in terms of GDP per capita between 2008 and 2020. Likewise, income and multidimensional poverty in rural areas has reduced faster in rural areas (-11.8 percentage points and -19.7 pp respectively between 2010 and 2021) than in urban areas (1.8 pp and -11.4 pp respectively) (DANE, 2022[5]). Colombia's economy has also recovered well from the COVID-19 crisis. By 2022, Colombia is expected to register the greatest GDP growth across OECD countries (OECD, 2022[6])

But the country still records the highest regional GDP per capita inequality in the OECD

Despite the progress, the county still needs further efforts to better distribute economic growth and well-being across all regions. By 2020, the country still recorded the highest OECD GDP per capita gap between the richest and poorest regions, with metropolitan regions like Bogotá having almost five times the GDP per capita of rural regions like Guainía or Vaupés. Overall, rural areas register almost 3 times more multidimensional poverty (31.1% in 2021) than urban areas (11.5%) (DANE, 2022[5]).. Gaps in access to quality public services (e.g. water, education, healthcare, sanitation or broadband) and higher security levels explain such disparities in well-being.

While Colombia's rural economy is transitioning towards services activities, agriculture still employs the bulk of the rural workforce but has low productivity levels

Colombia's rural economy has evolved from a mainly agricultural economy towards more diversified economic activities. Over the last decades, the participation of agriculture in the national economy has decreased significantly, from 14% of the GDP in 1995 to 6% in 2020, which is a common trend across OECD countries transitioning to higher income levels and diversifying in tertiary activities (OECD, 2014[7]). Indeed, between 2015 and 2021, the employment growth rate in sectors such as electricity, gas, water and waste management (9.3% annual average), professional and scientific activities (2.9%) or transport and storage (2.3%), was far above the employment growth in agriculture (0.1% annual average) (DANE, 2022[8]). By 2019, tertiary activities accounted for the largest value-added of Colombia's rural regions. Energy and public administration activities (e.g. education and healthcare) represent the greatest source of gross value-added in rural regions (67%).

Despite this transition to service activities, agriculture is still the major employer in rural economies. This sector employs about 62% of the rural workforce, accounting for 16.4% of workers in the country (around 3.9 million people), which is above Latin American countries like Mexico (12.8%). Colombia is one of the world's top five producers of coffee and palm oil, and one of the world's top ten producers of sugarcane, banana, pineapple and cocoa. Agricultural products represent the second-highest export group in the country (20% of national exports in the last 4 years), after extractive industries products.[3]

Yet, agriculture productivity in Colombia remains below the national average and other countries in Latin America. Agricultural labour productivity was 59% below the national labour productivity in 2021, a gap that have not significantly changed since 2005 (60%).[4] The low productivity in agriculture is driven by a combination of factors:

- Some directly linked to the agricultural sector and its structure, such as an atomised agricultural production made of family farming in small land areas (65% of agricultural production units operate in less than 4 hectares), along with a lack of basic goods and services for agricultural production (70% of Colombian farms do not use machines for their production process).
- Others related to cross-cutting challenges in rural communities, including lack of infrastructure (e.g. roads, aqueducts, sewerage), land informality or low educational attainment.

Agriculture will remain an important source of income for some rural communities and relevant to raise well-being in the country (e.g. food security). Therefore, policies to improve the productivity of this sector are strategic for rurality: they must go beyond an isolated sectoral approach and co-ordinate with other sectoral policies to solve the cross-cutting rural challenges.

Rural economies need to accelerate their diversification to increase income opportunities

Diversifying the rural economy is essential not only to improve economic resilience but also to increase the income of farmers and the rural population as a whole. As in many OECD countries, Colombian rural regions tend to be more specialised in fewer economic sectors (37.6% in terms of employees devoted to a single sector) than urban regions (24.9%). Farmers who can complement their incomes with off-farm activities are more resilient to external shocks and are more likely to meet sustainable living standards.

For example, in other OECD countries like the United States, the vast majority of farm households earn more money from off-farm employment or activities indirectly linked to the sector than they do from farming (Federal Reserve Bank of St. Louis, 2021[9]). This is due to the existence of greater opportunities for these agricultural households to access labour markets in urban areas and to create links between agriculture and other sectors (e.g. services, tourism or industry), mitigating negative effects during poor harvest seasons.

Diversified rural economies can also increase women participation in the rural economy. The proportion of women relative to men is smaller in rural regions (99) than in metropolitan regions (92), despite the country has a slightly greater proportion of women than men (95 men per 100 women). The relative share of women in rural Colombia is also below the average of rural regions across the OECD (98 men per 100 women). This phenomenon can be associated with lower opportunities for education and formal work for women in rural economies, which tend to be concentrated in care activities. In rural areas of Colombia, only 29.2% of the employed population is female, although they represent 46.8% of the rural population in working age. Overall, women account for 82% of work in the home, as well as 59% of unpaid domestic work, compared to only 18% and 41% for men, respectively.

Rural regions have untapped development opportunities but historic structural challenges prevent unlocking their potential

Colombian rural regions in Colombia are a key source of well-being and growth for the country and are of great environmental importance to the world, with a number of environmental, cultural and economic assets. Table 1.1 depicts the most outstanding rural assets identified in this review.

Table 1.1. Main assets of Colombian rural regions

Opportunity	Description
Demographic bonus	Contrary to the trend of ageing population across OECD countries, Colombian rural regions benefit from a high share of young population (26% in 2021), far above the OECD average (17%) and other OECD Latin American countries, like Chile (20%). This demographic structure is a bonus for rural regions as young people are a source of innovation and vitality for the community. Regions close to small cities have the highest share of young population in Colombia (27%),
Ethnic diversity	Colombia is a source of culture, with a multi-ethnic and multilingual country including five recognised ethnic groups: i) Indigenous; ii) Raizales; iii) black or Afro-Colombian; iv) Palenqueros; and v) Roma or Gypsy populations. This

	multiculturalism is a source of alternative environmental knowledge and touristic potential as well as an amalgam of know-how that is part of Colombia's culture.
Biodiversity	The country has 15% of the planet's biodiversity, ranking it as the 1st country in diversity of birds and amphibians. This is both an opportunity and a responsibility, giving scope for tourism exploitation while requiring conservation/restoration programmes. This biodiversity has attracted international attention for its high environmental value, especially in the current context of ecological value awareness (FAAE, 2020[10])
Resource wealth	The country ranks 6th in water volume worldwide, 2nd in Latin America in terms of wind speed, and has high solar radiation, fertile land with no growing seasons and an important endowment of minerals (some relevant for the energy transition).
Agriculture value chains	The strong value chains/innovation of sectors such as coffee or cocoa can serve as a guide for many other agricultural sectors, where this associativity is particularly important due to the small size of farms.
	Emerging rural sectors
Eco and cultural tourism	To help preserve the environment, it is critical to empower minorities and boost traditional economic activities. For example, Colombia has great potential for birdwatching tourism (estimates of up to 7 500 new jobs in 10 years) with existing projects involving Indigenous communities (in Guajira). If it is linked to other sectors (e.g. agriculture), the sector is capable of generating indirect economic effects at the local level (e.g. gastronomic routes).
Renewable energy projects	Existing natural assets (e.g. wind, solar) should be mobilised to decarbonise and increase the resilience of the country's energy mix while creating new income sources for rural communities (e.g. through benefit-sharing mechanisms).
Bioenergy	The abundant raw material of agriculture can be beneficial, as most of the organic waste (99%) produced in Colombia comes from agricultural and livestock activities (e.g. palm, sugarcane, biomass from agriculture or organic waste). This can provide affordable energy for rural communities and an alternative income for farmers.
Environmentally sustainable mining	The geological potential of the country can be leveraged to benefit from the increasing global demand for the strategic minerals needed to develop clean energy technologies, while unlocking new job opportunities locally and ensuring greater social benefits for rural communities with strategies for environmental protection and involvement of local communities.

Yet, rural regions face historic structural and cross-cutting challenges that prevent unlocking their potential and achieving greater national well-being. These challenges tend to disproportionally affect some segments of the rural population, such as youth, ethnic communities and women, and increase outmigration from rural areas. Table 1.2 depicts the main cross-cutting challenges in Colombian rural regions.

Table 1.2. Main cross-cutting challenges of Colombian rural regions

Challenge	Description
Land informality and highly concentrated	Land in Colombia is highly concentrated among few landowners. In 2017, the average Gini coefficient of land ownership in Colombia was 0.868 (UPRA, 2018[11]) where 1 corresponds to total concentration), above the level in Latin America (0.79), Europe (0.57) or Africa (0.56) (Ariza, 2022[12]) . Moreover, the rate of land tenure informality reached 52% by 2019, with at least 75 municipalities that register land informality rates between 75% and 100% (UPRA, 2020[13])
Labour informality	Labour informality is higher in rural areas (84% in 2021) than in urban areas (63%). This is partially due to the high labour informality in agriculture (88%) (DANE, 2022[8]).
Lack of information	There is a lack of information relevant to rural development in Colombia. There is no clarity on the number of vacant plots of land (*baldíos*) or tertiary roads. There is no consolidated information system with characteristics of rural farmers or potential beneficiaries of productive programmes.
Poor transport infrastructure	Colombia's road density (530 km per million inhabitants) is below countries of a similar level of development in Latin America such as Brazil (1 066 km) and Mexico (1 188 km). Departments in the east and west of the country are still not connected to the primary road network. Moreover, only 6% of the tertiary roads with available information are paved and many communities are only reachable by river, which lacks an efficient infrastructure. According to the World Economic Forum Global Competitiveness Report, Colombia ranked 102 out of 140 economies in terms of road quality.

Challenge	Description
Low access to high-quality broadband connectivity	Given the geographic difficulty to reach rural regions with transport infrastructure and the relevance of an inclusive digital transformation, broadband access is one of the most important drivers of rural development in Colombia. Only 28.8% of households located in rural areas (according to the DANE definition) have broadband access (fixed and/or mobile), in contrast with 70% of households in urban areas. Moreover, fixed broadband speeds in regions far from metropolitan areas are on average 79% slower than the national average (2021). Colombia is one of the countries with the biggest urban-rural gap in broadband speeds in the OECD area.
Reduced access to and quality of services	*Education*: About 70% of children and youth without education in Colombia are located in rural areas. The rural population has on average 3 fewer years of education than the urban population and only 5.1% of the rural population over 17 years of age has a higher education degree. Likewise, the dropout rate in upper secondary and tertiary education is higher in rural areas (45% of rural youth aged 18-22 do not complete upper secondary education). *Health*: Issues in healthcare access start from maternity care in rural areas, with remote rural areas registering 86 maternal deaths per 100 000 live births per year, compared to 42 maternal deaths in urban areas in 2019. *Electricity*: In 2021, about 10.9% of Colombian rural households lacked an electricity service, far above the 0.1% of urban households lacking this service. *Water*: In 2021, about 47.5% of Colombian rural households lacked access to tap water, far above the 2.5% of urban households lacking this service. Likewise, rural areas on average have a risk linked to their water quality (Water Quality Risk Index for Human Consumption of 29.9 in 2019), almost 3 times as high as urban areas (11.3).
Trust in institutions and security	An important barrier to rural development in the country has been the historical violence affecting rural communities, which has also impacted the infrastructure and augmented transaction costs and land conflicts. Moreover, in 2019 public trust in government was low (37% of the population reporting trust in government) relative to the OECD average (52%), and has declined over time (from 51% in 2017) (OECD, 2022[14]).

Addressing the structural challenges in rural regions and mobilising their potential requires a comprehensive policy approach to rural development

Colombia needs to further clarify its rural policy

Colombia's national policy framework can better differentiate between rural development and agricultural development, clarifying the different uses of the concepts of "agriculture", "rurality" and "countryside". For example, the National Development Plan (NDP) 2018-2022 strategy "Countryside with Progress: An alliance to boost the development and productivity of rural Colombia" aimed to develop "rural Colombia", but five out of its seven measures focused on improving the conditions for the agricultural sector, and were the ones with clear monitoring indicators and the greatest budget.

This overlap between agriculture and rural policy also occurs across other policies. For example, the innovation policy for rural areas conducted by the Ministry of Agriculture and Rural Development (MADR) is mainly focused on agricultural innovation. Moreover, national policies in Colombia (e.g. Pact for Entrepreneurship) do not differentiate actions among urban and rural areas, thus requiring a better territorial approach to take into account particular characteristics across rural and urban places.

The Ministry of Agriculture and Rural Development has led rural policy with an agricultural bias

MADR is the lead institution in charge of agricultural, fishing, forestry and rural development in Colombia. Flagship policies of this ministry focused on addressing the main structural problems of farmers in Colombia. They include the ongoing National Agricultural Innovation System, the Productive Alliances programme to help attain economies of scale among small farmers, the Contract Farming programme to reduce intermediaries in the sale of agricultural products and the Entrepreneurial Countryside programme to support entrepreneurship culture in the poorest rural municipalities. These programmes have increased the coverage of agricultural policy and the involvement of the private sector in the implementation.

Yet, MADR flagship programs could be strengthened with a long-term strategic vision, based on success indicators to measure medium-term results rather than coverage and on mechanisms to promote greater synergies among MADR programs and rural development programs implemented by other ministries.

Likewise, the National Agricultural Innovation System still needs to be fully implemented (e.g. establishing the operational guidance and the system of monitoring).

The MADR needs to clarify its role in terms of co-ordination and design of rural policies to attain long-lasting outcomes in rural development. Despite MADR's mandate to lead and co-ordinate rural policy, most of the ministry's flagship and strategic programmes have focused on improving the competitiveness of the agricultural sector, with less attention to other relevant areas of rural development. Beyond the work stream on rural women, land use management and actions of the Entrepreneurial Countryside programme, most of the strategies to achieve the goals of the ministry's 2018-2022 plan had an approach based on agriculture. For example, MADR's rural development objectives, such as increasing public goods or improving rural incomes, primarily targeted productive agricultural projects. Clarifying the scope of the ministry in rural policy would help mobilise synergies with different policies while improving the efficiency of resources for agricultural competitiveness.

The current lack of a common rural information system hampers the effectiveness of government programmes

The lack of consolidated information systems has led MADR productive programmes, as well as those of other ministries, to face challenges in reaching the appropriate rural beneficiaries and avoiding duplication of actions. Moreover, this issue has nourished a passive approach in the way official productive programmes are delivered, as they tend to rely on voluntary applications, creating inequalities among rural beneficiaries. In rural ecosystems with high inequalities of information and skills, voluntary programmes risk benefitting those producers with greater administrative capacities (e.g. to fill out documents) or networks to access information.

While the government has undertaken strategies to address the rural information through different institutional actions (e.g. MADR's National Unified Rural Agricultural Information System [SNUIRA], the Multipurpose Cadastre [*Catastro Multipropósito*] or My Rural Registry), all of these information programmes still need to achieve interoperability to provide integrated rural information for policy making. A bottleneck for the interoperability of rural information is the regulatory limits that government agencies face in sharing collected information in a common system. Other OECD countries have implemented socio-economic information systems at the territorial level (Chile and Italy) or created rural observatories (European Union). Chile, for example, has additionally established a commission to make the definition of rurality consistent across government levels.

Colombia already has policies and institutional mechanisms to adopt the inter-sectoral approach to rural development

Colombia already has important elements to advance towards a comprehensive policy framework for rural development. The first point of the 2016 peace agreement, the Integral Rural Reform (IRR), includes several elements of previous efforts to improve Colombian rural policy, such as the Rural Mission of 1997, the Rural Development Statute and the Rural Mission 2014. The IRR promotes a place-based approach to transform Colombian rural areas based on four main pillars: i) improving the use and access to land; ii) establishing special Development Programs with a Territorial Approach (PDETs); iii) creating 16 sectoral national plans to promote basic goods and services in rural regions; and iv) ensuring food and nutritional security.

An innovative element of the IRR is the PDET, as a planning instrument that allows the communities most affected by violence define their development objectives and provides co-ordinated government interventions with a long-term vision. Likewise, the creation of 16 sectoral national plans for rural development results in an important step to mainstream rural needs across different sectoral policies, covering several of the main priorities for rural communities around infrastructure, education, social development or labour formalisation. The implementation of these sectoral national plans needs to be

accelerated and co-ordinated with other productive plans in order to bring meaningful and sustainable rural development outcomes.

Along with the IRR, Colombia has a variety of national policies relevant to rural development that need to materialise. They include the innovation plan, the cultural tourism policy, the sustainable tourism policy and transport plans multimodal along with the energy transition and mining policy. The country also has mechanisms to strengthen co-ordination with and between subnational governments, including the OCAD (Collegiate Administration and Decision-making Bodies) or the Territorial Pacts (territorial planning instruments of voluntary agreement between levels of government).

The national policy framework needs greater prioritisation on the structural rural challenges to attain a sustained increase in rural well-being

Strengthening infrastructure projects for tertiary roads and multimodal transport to alleviate the historic lack of connectivity in rural communities

In recent years, the Colombian government has increased the investment to improve and expand transport infrastructure in the country but the level of investment will need to be sustained to close the historic rural connectivity gap. The investment in recent years (3% of GDP in 2019-21) has doubled the average trends during the last decade (1.9% in 2010-20), but it is still below average investments rates across other middle-income countries in East Asia and the Pacific (5.7%).

Particularly, while investments in primary roads have progressed, the challenge to expand and improve secondary and tertiary roads remains. Regional and municipal governments are mainly responsible for these roads but many lack financial and human capacity, which leads to transport infrastructure projects without technical criteria and low-quality solutions. Moreover, information on the number of tertiary roads remains scarce, partially due to the lack of clear protocols for updating this type of information and of a centralised database for these roads, coupled with low subnational government capacity to collect and provide complete information on the roads under their responsibility.

The national government needs to help advance some of the projects on secondary and tertiary roads. To this end, the government can accelerate the Colombia Rural project by ensuring sustained and diversified funding (e.g. with Work for Taxes scheme, royalties) and going beyond the voluntary applications approach to actively reach poor municipalities with co-financing solutions. Colombia's diverse and difficult geography also requires accelerating the development of other modes of transport (railway and fluvial) to free up space on roads and improve the mobility of people and goods. For this, the country needs to advance the implementation of the Intermodal Transport Master Plan (PMTI). Moreover, strengthening the regional transport secretaries as well as redirecting existing maintenance co-operatives across the country to work on tertiary and rural roads can play a decisive role in improving the quality of tertiary roads.

Broadband connectivity in rural areas needs to improve in coverage and quality to provide equal development opportunities

Closing existing connectivity gaps is not without its challenges. Network deployment in Colombia is hampered in some rural areas due to difficult geographical conditions, sparse settlement patterns, unstable electricity supply or insufficient access to rights of way. In these areas, network maintenance is also difficult. People and businesses can only participate in the digital transformation if they are connected, which is why closing broadband connectivity divides in rural areas is indispensable

The Colombian government has put in place important initiatives over the years to extend and improve broadband connectivity in rural areas, including co-funding a fibre backbone (Azteca network) and developing programmes to deploy free public broadband access points in rural areas (*Zonas Digitales* and the *Centros Digitales*). However, these programmes need to be carefully reviewed to improve their impact.

The Azteca fibre network, for example, only reaches the centre of municipalities, with no coverage in the closer surroundings and the last-mile, leaving many households and businesses unconnected. The programmes of free public broadband access have faced major continuity challenges and lacked territorial prioritisation (e.g. the 5 regions with the lowest share of connected homes were not included in the first phase of the initiative that built out the *Zonas Digitales*). Importantly, these programmes are not a substitute to connect businesses and people directly through fixed and mobile broadband subscriptions. Reliable high-quality connectivity is needed to ensure that rural communities can benefit from access to advanced digital services (e.g. telemedicine) or new technologies (e.g drones, 3D printers, artificial intelligence). Community networks and small operators have also an important role to play to increase broadband access in rural areas.

In Colombia, subnational governments should lower barriers imposed locally to deploy communication infrastructure. Some of these barriers include the lack of clarity regarding land-use restrictions or requests for additional approval procedures. Moreover, Colombia should spur competition in the mobile communication services market, given the dominance of one actor in this market (Claro), and further recognise that mobile coverage increasingly requires extensive fibre deployment. Especially with respect to 5G deployment at national level, it is indispensable to deploy fibre deeper into mobile backbone networks and to lay fibre to mobile cells in order to offload mobile traffic into fixed networks. Furthermore, the country should promote more flexibility for experimentation in rural areas. Finally, overall taxation and sectoral fees should be revised and lowered, to the extent possible, as they are comparatively high relative to other OECD countries and can hamper a broad adoption of communication services.

Building on recent efforts to improve rural access to quality education and healthcare

Colombia has progressed in the provision of education and health in rural areas, especially when it comes to coverage of primary services. This has also been the case of other services such as water and electricity, which have experienced important progress over the last years. Moreover, the government has issued sectorial national policies on education, healthcare, electricity or water, with a particular rural focus.

However, urban-rural disparities remain high, with the provision of quality rural education and healthcare facing barriers in terms of infrastructure and skill attraction. National plans to improve rural service delivery are in the right direction but need to be accelerated, with sufficient financial and human capacity and a more comprehensive approach. Infrastructural barriers (e.g. medical centres and schools that are underequipped or with limited electricity and broadband access) contribute to lower access to education and healthcare in rural areas. This is coupled with the lack of transport services and infrastructure that affects accessibility of many students, patients, teachers or nurses. Moreover, violence and lack of incentives hamper the attraction and retention of skilled service professionals. For example, several rural schools operate under the modality of single-teacher organisation in a multi-grade classroom, with educators in rural areas having lower levels of education than in urban.

Despite the official programmes to improve access to education (e.g. Special Plan for Rural Education [PEER] or *Todos a aprender* programme), education policies and initiatives have relevant areas for improvement. The rural focus in education strategies and policies is still limited, partly due to the centralisation of decision-making, the weak alignment to local contexts and the low involvement of local actors in policy design and implementation. Moreover, the country needs to better link the academic offer with the needs of rural economies and clarify communication and co-ordination for educational strategies to use digitalisation as a partner for education provision.

In terms of rural health, the government has expanded the coverage of the subsidiary regimen throughout the population and designed the National Rural Health Plan (NRHP) (2021-31). These efforts need to be reinforced by increasing flexibility in healthcare services (e.g. mobile health units or rural health promoters), better tailoring national health policies to rural characteristics (e.g. in terms of payment capacity of rural communities) and accelerating the adoption of telemedicine. Moreover, co-operation of health programmes

with other policies and areas is essential to attain economies of scale and ensure better healthcare quality, especially in primary health and prevention programmes. For example, the implementation of the NRHP can be better co-ordinated with education policies, particularly the Special Admissions Programme (PAES), and infrastructure projects in sanitation.

Further efforts are needed on land restitution and formalisation as well as on clarity on the autonomy of ethnic groups to improve social cohesion in rural communities

The National Development Plan and the IRR contain important diagnostics and pathways for tenure security and the reduction of conflicts in the countryside. Land restitution and distribution policies are fundamental to addressing the high levels of rural poverty, violence and deforestation in the country. The policy of adjudication of untitled public lands (*baldíos)* is a key instrument that has to be accompanied by the facilitation of land formalisation. These land policies cannot be seen as an isolated strategy for rural well-being, and their success relies on complementarities with other rural policies (e.g. infrastructure, access to services and support to support to the productive reconversion of land).

However, land distribution, restitution and formalisation policies and, in general, the implementation of the pillar of access to land in the RRI face important challenges to advance at greater speed. There is a pressing need to improve levels of information on the status and quality of lands, and efforts to solve conflicts arising from informal occupation. For example, the government does not know the share of its untitled public land (*baldíos*) and its occupation status, which is meant to be distributed in the land adjudication process. Because of that, the constitution of the Land Fund has remained incomplete. The *Catastro Multipropósito* can be a powerful tool to provide the right information on land parcels and thus contribute to land formalisation and distribution processes but its implementation needs to be strengthened.

Unresolved issues in land constitution for ethnic groups and lack of clarity on territorial autonomy create socio-territorial conflicts and hamper co-operation among local actors to attain common development goals. Colombia, as a multi-ethnic, multicultural social state of law, is committed to protecting Indigenous, Roma and Afro-Colombian communities (1991 constitution). While the programmes that allow registered Indigenous reserves to execute their own resources (e.g. in education, healthcare and sanitation) have been clarified and are an important step towards autonomy, the issue of Indigenous Territorial Entities is yet to be fully addressed in the legal framework. Moreover, the process of constitution and enlarging of Indigenous reserves and Afro-Colombian territories is considered to be opaque and slow. The reallocation of occupants of ancestral lands, the lack of binding agreements to settle land claims in definitive and the issues in land information (e.g. availability of untitled public lands) are structural problems affecting land constitution processes.

Enhancing environment conservation and its income-generating potential requires stronger involvement of local communities in land use management

Deforestation, illegal mining and timber extraction create socio-territorial conflicts and push Colombia away from climate change mitigation efforts. Seventy-one percent of protected natural areas in Colombia are linked to ethnic groups and 99% of Indigenous lands capture more carbon than they emit. Incentivising a widespread use of payment for ecosystem services (PES) can generate economic opportunities in rural areas while ensuring an adequate level of environmental protection. Socialising the advantages of PES and simplifying their adoption may generate stronger adoption for nature conservation. Government has also the scope to leverage traditional land management practices of Indigenous groups and Afro-Colombian populations to preserve biodiversity, water resources and soil quality. Such practices can be associated with income-generation opportunities to alleviate poverty levels and foster Indigenous development.

Rural policy implementation requires better co-ordination among levels of government and further involvement of local actors to attain long-lasting outcomes

An inter-ministerial structure can co-ordinate the design and implementation of rural development policies at the national and local levels

Colombia has vast experience in designing rural development policies and plans, but it faces important challenges in their implementation due to co-ordination issues and changes in political priorities. Colombia's sectoral approach to rural development currently consists of independent actions taken in different ministries, with each ministry designing and implementing rural-related policies (tourism, mining) without consulting MADR or any other co-ordinating body. While seven sectoral bodies of advisory and co-ordination intend to support the co-ordinating role of MADR (e.g. National Council for Agrarian Reform and Peasant Rural Development or Superior Council for Land Restitution Management), these committees have little convening power and lack binding participation. In addition, there is no clear mechanism in Colombia to co-ordinate and integrate the 16 sectoral national plans of the IRR or promote synergies with other policy domains (e.g. entrepreneurship national policy).

This lack of co-ordination is also evident across government agencies in charge of implementing rural programmes (e.g. Agency for Rural Development, Agrosavia), which struggle to co-ordinate interventions at the subnational level amongst themselves or with non-governmental organisations. Moreover, co-ordination is needed to address fragmentation and duplication of spatial planning instruments and enact these instruments where there are redeemed as necessary. There is a variety of spatial planning instruments at different scales (e.g. Rural, Economic and Social Development Zones [Zidres], Peasant Reserve Zones or PDETs) but without a public policy to co-ordinate their implementation and promote a common vision of development. Co-ordinating these spatial plans is important, for example to enable lands that have been distributed, returned and formalised to be put to their best use, be it agricultural, environmental or community-oriented.

To overcome these issues, Colombia would benefit from an inter-ministerial mechanism or institution that co-ordinates the comprehensive and inter-sectoral rural policy with the policies relevant to rural development and ensure policy implementation beyond political cycles. Chile's Inter-ministerial Commission for City, Housing and Territory or Finland's Rural Policy Council can guide Colombia in the development of an inter-ministerial co-ordinating structure on rural policy. Accountability from non-governmental actors is crucial to ensure the co-ordination of this inter-ministerial structure works in the long term. To this end, other OECD countries have involved non-governmental actors within the inter-ministerial co-ordinating mechanisms (e.g. Finland, Ireland) or created an advisory council from civil society to guide and monitor the implementation of the national rural policy (e.g. Chile)

Municipal governments need to become better partners for rural policy implementation

Colombia's subnational governments (SNGs) are the main providers of public services (e.g. education represents 31% of the total subnational government budget). However, rural SNGs have a shortage of qualified staff and a low capacity for effective policy co-ordination of national programmes. According to the National Planning Department (DNP) index of subnational government performance, regional governments with a higher level of rurality present greater difficulties in planning and implementing policies. Furthermore, despite the relevance of responsibilities at the local level, they have limited authority over how expenses are allocated since most subnational taxes and transfers are earmarked.

Other OECD countries (e.g. Mexico) have incentivised local government capacity through greater use of certification strategies (e.g. public rankings of regional performance), or partnerships with universities to boost staff. Governments associations around simple projects to improve planning capacity and gain scale in investments should receive greater focus due to the polycentric territorial of Colombia. Yet, the structures and incentives to create partnerships among rural and urban municipalities and conduct joint projects are

still unclear in the national policy framework. Moreover, Colombia's Decentralisation Mission will be key to defining actions that improve the capacity of local governments.

The government has scope to make civil society a stronger partner in rural policy implementation

Indicators of citizen participation in policy formation reveal that regions with a higher degree of rurality still face greater difficulty in integrating citizens into the policy-making process. While this can be explained by the communication challenges in some regions and the reduced staff capacity in rural governments to promote participation mechanisms, it also reveals a lack of incentives, trust and capacities in the communities to demand their participation in the definition of policies and monitor their implementation.

Building community capital in Colombia is the first step to making rural communities effective partners in local economic development. It requires supporting businesses and social initiatives and promoting their participation in public planning, investment or monitoring activities (e.g. participatory budgeting). Moreover, the fragmentation of productive and social programmes delivered to rural communities makes it difficult for beneficiaries to identify the most suitable programme and connect with the right agency. Simplifying the access to national and regional programmes for rural beneficiaries (e.g. regional one-stop-shop offices of national programmes) can ease civil society's accountability to and involvement with rural policy.

Recommendations

Developing a comprehensive national rural policy that focuses on raising people's well-being

1. Ensure policies across all levels of government make use of a consistent rural definition that recognises the diversity of rural areas and acknowledges urban-rural linkages [DNP and DANE] by:
1.1. Further leveraging the territorial classification of both the Mission for the Transformation of the Countryside and DNP's functional sub-regions to promote a consistent rural definition for policy purposes. The DANE's statistical territorial classification can be further improved by recognising different types of rurality and territories with strong rural and urban linkages. As in Chile, Colombia could create a commission to standardise the rural definition across levels of government
2. Establish an integrated rural information system [DNP, DANE and MADR with the co-operation of other ministries].by:
2.1 Accelerating the rural information projects that are underway (e.g. Multipurpose Cadastre and My Rural Registry) and promoting interoperability among them and with established population databases (e.g. SISBEN 4). This requires formal collaboration among different ministries, DNP and DANE to improve information on rural areas, including tertiary roads, the status of lands and titles, potential locations for communication infrastructure or characterisation of rural inhabitants
3. Create a holistic national rural policy that focuses on the well-being of people and takes a cross-sectoral approach, harmonising the Integral Rural Reform with other productive and transversal policies [Presidency, DNP, MADR and the national body co-ordinating rural policy]. The experience of Chile and Finland can be a guide for Colombia. This involves:
3.1 Clarifying the role and capacity of the Ministry of Agriculture and Rural Development in the design and implementation of rural policy and the co-ordination of sectoral policies for rural development.
3.2 Upscaling and ensuring continuity of the Ministry of Agriculture and Rural Development's policies to improve agricultural productivity (e.g. Productive Alliances, Contract Farming programme or the National Agricultural Innovation System).
3.3 Grounding the policy in differentiated local needs by adapting policy actions to different types of rural regions based on functional interactions. The policy could leverage planning instruments such as PEDT to gather local priorities and prioritise across the type of regions.
3.4. Embracing a forward-looking approach to involve the effects of megatrends (technological and demographic change) or other transformations (e.g. remote working) on rural development. Ireland's national rural policy can be a guide for Colombia.
3.5 Adopting an inter-sectoral approach to the rural economy to unlock new growth opportunities and accelerate diversification. It includes promoting inter-sectoral programmes around agriculture (e.g. bioenergy, agrotourism), leveraging tourism policies to valorise rural cultures and promoting renewable energy and mining projects tailored to local goals and views of development.

Prioritising key enabling factors for rural development to ensure lasting policy outcomes and mobilise the rural potential

4. Strengthen the implementation of transport infrastructure projects for rural communities [Ministry of Transport with support of DNP and sub-regional governments]. This involves:	
4.1 Prioritising road transport projects and the implementation of multimodal transport solutions (Railway and River Master Plans) to connect remote regions. It involves accelerating ongoing primary and secondary road projects that connect remote regions and the implementation of multimodal transport projects. Diversification of infrastructure funding to implement the existing multimodal transport plan should be explored (e.g. aggregation of funding sources from different levels of government and the private sector).	
4.2 Enhancing financial and staff capacity of the *Colombia Rural* programme to co-finance expansion of tertiary roads, while improving municipal government capacity in this task. This programme needs to adopt a proactive approach to reach subnational governments that do not apply to the co-finance scheme.	
4.3 Enhancing local co-operation to expand and improve tertiary roads by mobilising local communities, private sector funding (e.g with the Work for Taxes scheme) and inter-municipal partnerships for road investment and maintenance.	
5. Ensure the provision of high-quality broadband access in rural regions [Ministry of Information Technologies and Communications, the Communications Regulatory Commission and sub-regional governments]. This involves:	
5.1 Fostering communications infrastructure deployment	Providing legal certainty and reducing the burden of administrative procedures and costs associated with broadband deployment at the local level.
	Increasing transparency on potential locations for communication infrastructure deployment and on existing communication infrastructure assets.
	Developing a campaign to educate local governments and their decision-makers and population on the importance of connectivity.

5.2 Amplifying the impact of current policies to provide rural areas with greater connectivity:	Undertaking further work on concrete measures to connect more businesses and homes to the Azteca fibre backbone, creating an environment where private companies could leverage the existence of the backbone.
	Ensuring that contractors of the Zonas Digitales and Centros Digitales programmes are fulfilling their obligations while improving the maintenance and continuity of these programmes.
	Strengthening comprehensive policies (e.g. National Rural Connectivity Plan) to expand high-quality broadband access to complement programmes of points of public broadband access. This should acknowledge that *Zonas Digitales* and *Centros Digitales* programmes do not substitute connecting underserved people and businesses directly through fixed and mobile connections.
5.3 Leveraging on mobile services to narrow the rural-urban connectivity divide	Ensuring that operators are adhering to their coverage obligations from the 700 MHz auction.
	Taking into account coverage and competition considerations simultaneously, when planning the upcoming 3.5 GHz auction, and omit delays with this auction. It should be ensured that the extent of the coverage obligation is not an impediment for certain actors to bid in the auction.
	Providing a timely, transparent process and clear rules for spectrum license renewals.
5.4 Ensuring that taxation and sectoral fees do not hamper the adoption of communication services in rural areas	Identifying means to reduce the taxes and fees paid by communication operators (e.g. their contributions to the *Fondo Único de TIC*) and ensuring that the use of the resources of the Fondo Único de TIC is monitored and used efficiently
5.5 Complementing measures to extend connectivity through bottom-up approaches and innovative regulation	Creating an enabling environment for the development of community-led initiatives.
	Recognising small Internet service providers as important players in extending connectivity in rural areas.
	Considering ways to enable more companies to experiment with projects in the regulatory sandbox.
6. Enhance access to education and health in rural communities [Ministry of Education, National Training Service (SENA), Ministry of Health, DNP and the national body co-ordinating rural policy]. This involves:	
6.1 Co-ordinating the implementation between the National Rural Health Policy and the National Rural Education Policy.	
6.2 Reinforcing flexibility of education systems, while promoting minimum quality	Developing core curriculum national guidelines to ensure minimum level in some basic competencies, while leaving subnational flexibility in the rest of the curriculum.
	Better integrating local communities – including Indigenous and Afro-Colombian communities – in educational decision-making and fostering alternative schools with adapted processes to address rural dropout (e.g. Chile's Súmate Foundation).
	Adding greater flexibility in food school programmes (PAE) to support local producers and supporting flexible school transport.
	Fostering alternative and flexible schools with adapted processes to address rural dropout for example by focusing on children with gap years in education. Chile's Súmate Foundation initiative could be a useful example.
6.3 Scaling up flexible care alternatives to empower rural population around health	Further supporting mobile health units in rural regions to improve staff's professionalisation and reach remote communities with more frequency.
	Leveraging alternative health practices (e.g. Indigenous approaches) in rural communities.
6.4 Upscaling the quality of health and education provision by fostering digital services, upskilling rural professionals and improving attraction policies	Increasing rural teachers' access to training with targeted courses on digital skills and new teaching methods, while adopting attraction and retention policies through career incentives.
	Leveraging mobile service to complement the provision of telemedicine services through fixed connections in rural areas.
	Fostering collaboration with universities and schools to improve digital skills of health professionals.
6.5 Facilitating complete trajectories in education	Better connecting the educational offer for people wishing to complete their studies with the needs of the territories (e.g. using the Tutorial Learning System) and involving educational institutions in rural policy making.
	Involving educational institutions (e.g. SENA) in the rural policy-making process by partnering with local governments to co-build development plans and adapt the educational offer to future economic and social needs. The example of the Academy for Smart Specialisation of Karlstad University in Sweden could guide the government of Colombia.
6.6 Ensuring lasting health outcomes through policy co-ordination with a focus on primary health areas	Adopting a comprehensive and inter-sectoral approach to improve primary health and prevention services in rural areas. It can involve strengthening the co-ordination capacity of early childhood development services.
	Unifying health service support programmes to avoid administrative burdens and reorganising primary care around multi-disciplinary teams to simplify procedures (e.g. Multi-professional Health Houses in France).

7. Strengthen policies of land distribution, restitution and formalisation to open growth opportunities for rural communities [Presidency, MADR and its agencies, DNP and the body co-ordinating rural policy]. This involves:	
7.1 Prioritising financial and human resources to solve information gaps related to land by accelerating the implementation of the Multipurpose Cadastre, strengthening the national Geographic Institute (IGAC) and UPRA and improving the technical assistance to municipalities in the updating process of the cadastre. The government can consider transforming the cadastre into a permanent state policy, with dedicated budgetary allocation.	
7.2 Ensuring that rural women and socially vulnerable groups lie at the forefront of the distribution policy and facilitating conditions for beneficiaries to register the land (e.g. through campaigns to inform about benefits of land formalisation or providing the registry free of cost).	
7.3 Improving co-ordination efforts across the different agencies and ministers in charge of spatial planning instruments (e.g. Peasant Enterprise Zones, Rural, Zidres, Social Management of Rural Property Plans [POSPRs] or PDETs) to enable the most adequate use of rural lands, according to their location and their economic, environmental and social characteristics.	
8. Clarify the level of autonomy and land constitution to ethnic groups to boost social cohesion in rural places [Presidency, MADR and its agencies and Ministry of Interior]. This involves:	
8.1 Augmenting transparency and efficiency in the administrative process of constitution and expansion of Indigenous reserves and Afro-Colombian territories	Consolidating the Unified System of Information of Indigenous Territories with the efforts of the Multipurpose Cadastre.
	Reducing entry barriers by publishing a single list of documents that are necessary to file reserve constitution or expansion requests.
	Co-ordinating the administrative process of reserve creation or expansion among the different government agencies since the beginning, instead of leaving most of the concertation efforts to the high-level committee at the end of the process.
	Better communicating the stages of the administrative process of reserve creation or expansion with the interested parties, notifying them when the process goes to a different authority and for what purposes.
	Delineating a clear and agile procedure to issue provisory protection of ancestral lands, under the terms of Decree 2333/2014.
8.2 Strengthening consensual decision-making in land claims by establishing binding multi-ethnic dialogue tables to solve disputes. To this end, parties need to sign agreements to define the steps and object of negotiation and the negotiation tables require clear mandates, with reduced possibilities to leave the table without an agreement.	
8.3 Concluding the new national protocol on the right of prior consultation, to better include Indigenous and other ethnic groups in regional development by proposing the regulation to be enacted as a decree, based on a solid participatory process and including in the regulation a methodological route for consultation with ethnic communities, with basic procedures.	
8.4 Concluding the elaboration and approval of the special programme of access to land by Roma communities, as mandated by Article 17 of Decree 902/2017.	
9. Enhance law enforcement and involvement of local communities in land use management to fight deforestation and promote environmental restoration [Presidency, MADR and its agencies, Ministry of Interior and Ministry of Environment]. This involves:	
9.1 Allocating permanent funding and sufficient human resources dedicated to law enforcement in protected areas and their buffer zones.	
9.2 Ensuring that the definition of the agricultural frontier informs the design and implementation of environmental and agricultural instruments and policies, such as the National Environmental Restoration Strategy.	
9.3 Concluding the action plan for implementation of the Environmental Zoning Plan.	
9.4 Strengthening the support for peasants to access technical assistance to develop sustainable land practices and engage in conservation and restoration activities. For example, through payment for ecosystem services (PES) and nature conservation contracts.	
9.5 Supporting subnational governments by adapting their PES programmes into the national framework.	
9.6 Better co-ordinating the process of signing nature conservation contracts among different agencies and ministries.	

Improving the design and implementation of rural policy, supported by an inter-ministerial co-ordination body for rural policy

10. Create or adapt an inter-ministerial co-ordinating institution on rural policy with a presidential mandate to lead and monitor the comprehensive national rural policy and harmonise it with the Integral Rural Reform [Presidency, DNP]. This institution should have:
10.1 Institutional authority granted by presidential mandate to co-ordinate across ministries relevant sectoral policies for rural development and to monitor the implementation of the comprehensive rural policy. Chile's Inter-ministerial Commission for City, Housing and Territory or Finland's Rural Policy Council can be a guide for Colombia.
10.2 Capacity to use bottom-up planning instruments to adjust national policies to local needs (e.g. PEDTs) and to enable a mechanism for accountability with society- e.g. by integrating non-governmental actors in the inter-ministerial co-ordinating structure of rural policy or creating an advisory council for rural policy with civil society representatives.
10.3 Ability to co-ordinate sectoral investments and co-invest in rural development policies. This could involve a mandate to monitor the implementation of inter-ministerial budget lines focused on rural development or to manage funds for rural development.
11. Foment bottom-up planning instruments to identify local priorities across all types of rural regions [Presidency, national body co-ordinating rural policy]. This involves:
11.1 Extending and improving existing co-ordination and planning instruments at the subnational level, by improving the articulation of the PDETs with other subnational planning mechanisms (e.g. Territorial Pacts, Regional Commissions for Competitiveness and Innovation) to cover all municipality rural areas with consistent and stable instruments over time.
12. Reduce the complexity of rural policy delivery and monitoring [Presidency, DNP, and the national body co-ordinating rural policy]. This involves:
12.1 Creating a one-stop-shop or similar mechanism at the regional level to deliver different policies for rural development in a co-ordinated manner. It could involve setting offices at the level of functional sub-regions to gather and co-ordinate the delivery of programmes from the affiliated agencies of MADR along with those from other ministries.
12.2 Considering creating a hierarchy structure of indicators in the monitoring system of implementation, which differentiates among output and outcome measures, and multi-year budgets to recognise the difficulties of conducting projects in rural regions.
13. Expand staff and financial capacity-building strategies for regional and municipal governments, with a differentiated approach [DNP in co-operation with sub-regional governments]. This involves:
13.1 Formalising systematic training for local government officials, for example, by strengthening the regional programmes from education institutions such as the Superior School of Public Administration – ESAP or DNP's Strategy for New Territorial Leader.
13.2 Supporting inter-ministerial associations to conduct complex policy tasks for some municipalities (e.g. gathering information, land use management plans, investment attraction strategies). The example of Business Joensuu in Finland could be a guide for Colombia.
13.3 Evaluating strategies to reduce the number of earmarked taxes and increase the fiscal capacity of local governments. This involves supporting local governments to use the cadastral updating to improve property tax, allowing instruments such as congestion charges or tolls and promoting more flexibility in terms of user tariffs and local fees.
13.4 Expanding the certification system to measure administrative capabilities as a rewarding system to encourage regions to increase their own resources.
14. Enhance community capital to strengthen the involvement of civil society in rural policy and increase accountability and trust [DNP and sub-regional governments]. This involves:
14.1 Encouraging the development of community-led initiatives attached to local policy goals. This might involve setting support schemes for projects from community networks, supporting social enterprises and establishing (on line or in person) platforms to gather public opinion and foster community participation in local policy decision-making.
14.2 Coordinating with actions from private sector associations to improve rural well-being. This includes strengthening regional platforms to co-ordinate actions from local farmers' associations along with other types of local companies (e.g. tourist companies) and aligning the private sector's social investments (e.g. Work for Taxes) with public investment.
14.3. Leveraging bottom-up planning instruments (like PDETs) to empower local groups to identify local projects that could be accomplished relatively quickly with low investments and thus pave the way towards greater trust in government actions. It should be accompanied by whistle-blower protection procedures and bringing all purchases by subnational governments into the central procurement entity (*Colombia Compra Eficiente*).
15. Promote the formation of urban-rural partnerships to attain cost-effective investments and economies of scale in local projects [DNP, MADR and Ministry of Housing, City and Territory]. This involves:
15.1 Establishing clear guidelines to conduct urban-rural partnerships, in which municipalities can identify the benefit of co-operation and the legal and institutional arrangements that will allow them to co-operate.
15.2 Co-ordinating national rural and urban policies to set joint institutional and financial incentives to develop urban-rural partnerships.

References

Ariza, F. (2022), “Distribución de la propiedad rural en Colombia en el siglo XXI”, *Revista de Economia e Sociologia Rural*, Vol. 60/4, https://doi.org/10.1590/1806-9479.2021.242402. [12]

DANE (2022), *Gran Encuesta Integrada de Hogares, Población ocupada según su actividad económica y por cuenta propia*, https://www.dane.gov.co/index.php/estadisticas-por-tema/mercado-laboral/empleo-y-desempleo (accesed on October 2022). [8]

DANE (2022), *Pobreza y desigualdad*, https://www.dane.gov.co/index.php/estadisticas-por-tema/pobreza-y-condiciones-de-vida/pobreza-multidimensional. [5]

DNP (2015), *El Campo Colombiano: Un Camino Hacia El Bienestar y La Paz*, Misión para la Transformación del Campo, https://www.dnp.gov.co/programas/agricultura/Paginas/Informe-misi%C3%B3n-FInal.aspx. [4]

FAAE (2020), *LA importancia de la biodiversidad*, https://www.faae.org.co/colombiabiodiversa/biodiversidad-en-colombia.html#:~:text=Colombia%20es%20un%20pa%C3%ADs%20con,de%20mam%C3%ADferos%20(471%20especies). [10]

Federal Reserve Bank of St. Louis (2021), *Investing in Rural Prosperity*, https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/community-development/investing-rural/investinginruralprosperity-book.pdf. [9]

Machado, A. (1999), “El sector rural y el plan de desarrollo”, *Cuadernos de Economía*, Vol. 18/30, pp. 167-179, http://file:///C:/Users/Sanabria_a/Downloads/Dialnet-ElSectorRuralYElPlanDeDesarrollo-4934918.pdf. [1]

OECD (2022), *National Urban Policy Review of Colombia*, OECD Urban Studies, OECD Publishing, Paris, https://doi.org/10.1787/9ca1caae-en. [15]

OECD (2022), *OECD Economic Outlook, Volume 2022 Issue 1*, OECD Publishing, Paris, https://doi.org/10.1787/62d0ca31-en. [6]

OECD (2022), *OECD Economic Surveys: Colombia 2022*, OECD Publishing, Paris, https://doi.org/10.1787/04bf9377-en. [14]

OECD (2014), *OECD Rural Policy Reviews: Chile 2014*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264222892-en. [7]

OECD/EC (2020), *Cities in the World: A New Perspective on Urbanisation*, OECD Urban Studies, OECD Publishing, Paris, https://doi.org/10.1787/d0efcbda-en. [16]

Parra-Peña, R., R. Puyana and F. Yepes (2021), *Análisis de la productividad del sector agropecuario en Colombia y su impacto en temas como: encadenamientos productivos, sostenibilidad e internacionalización, en el marco del programa Colombia más competitiva*, Bogotá: Fedesarrollo, http://hdl.handle.net/11445/4092. [17]

UNDP (2011), *Colombia rural Razones para la esperanza*, Informe Nacional de Desarrollo Humano 2011, United Nations Development Programme. [2]

UPRA (2020), *Informalidad de la tenencia de la tierra en Colombia*, https://www.upra.gov.co/documents/10184/104284/01_informalidad_tenencias_tierras (accesed on October 2022). [13]

UPRA (2018), *Análisis de distribución de la propiedad rural en Colombia. Resultados 2018*, https://www.upra.gov.co/en/Publicaciones/Distribucion_2018.pdf. [11]

World Bank (2014), *Colombia Policy Notes: Toward Sustainable Peace, Poverty Eradication and Shared Prosperity*, World Bank, Washington, DC. [3]

Notes

[1] The OECD regional classification identifies non-metropolitan Colombian regions (provinces in Colombia) based on density, population thresholds and their level of accessibility to cities (understood as functional urban areas or FUAs). This classification identifies two levels of geographic units within OECD countries: i) large regions (TL2), which represent the first administrative tier of subnational government that in the case of Colombia is departments; and ii) small regions (TL3), which are provinces in the case of Colombia. Rural regions can include towns and small cities that do not belong to an FUA. Both levels of regions encompass the entire national territory.

[2] According to OECD classification, the share of Colombian population in rural regions is above the share reported by national classifications that are conducted at the municipal level: 30.4% of rural population in 2021 according to the Mission for the Transformation of the Countryside and 24% according to DANE's statistical definition. In addition to this OECD regional classification, the OECD also uses a granular territorial methodology to classify local units into cities, towns/semi-dense areas and rural areas: the degree of urbanisation, which was endorsed at the 2020 Statistical Commission of the United Nations (OECD/EC, 2020[16]). The recent OECD *National Urban Review of Colombia* (2022[15]) used the former classification. Instead, this *OECD Rural Review of Colombia* uses the regional classification to determine the level of rurality at the regional scale to better recognise interactions and trends across different types of regions in Colombia and urban and rural places within them.

[3] According to World Trade Organization product groups, based on Standard International Trade Classification (SITC) aggregation.

[4] Labour productivity is calculated as the value-added of the sector per worker. Other most complete measure of productivity, the total factor productivity (TFP), also reveals that the growth of Colombian agricultural productivity (0.6% between 2001 and 2016) is below the average of Latin American countries (1.8%) (Parra-Peña, Puyana and Yepes, 2021[17])

2 Strengths and challenges in the rural development of Colombia

The chapter provides an overview of the main economic, social and environmental trends in Colombian rural regions, setting the basis for policy recommendations in the following chapters. It first revises the classification of rurality in Colombia *vis-à-vis* the OECD territorial methodology. It then examines the national context under which rural development is taking place, and outlines the main economic and demographic patterns of Colombian rural regions. Finally, it analyses different drivers of well-being for rural regions.

Key findings

Demographic

- **Colombia's settlement patterns depict a polycentric structure.** While most of Colombia's population concentrates in metropolitan regions (57.9%), the country has a relatively high share of the population in rural regions (42.1%) in comparison to the average of OECD countries (29.6%).
- **Remote regions host most of the rural population in the country,** followed by regions with/near a small/medium-sized city.
- **Unlike the trend in most OECD countries, Colombian rural regions are young, an asset that can be further mobilised.**
- **Women are not fully inserted in the rural formal economy**, missing a great asset to the country's economy.

Economic

- **The economy has improved greatly** over the last two decades, generating higher levels of development and reducing poverty during this period.
- **However, territorial inequality in income** and other well-being factors remain high and have room for improvement to attain greater social cohesion. Risks of an economic slowdown in the short-term should not affect the effort to reduce territorial inequality.
- **The rural economy is increasingly diversified** in terms of value-added and employment, shifting gradually from the high relevance of primary activities.
- **Nevertheless, agriculture is still the major employer for rural communities**, but have low levels of productivity and face high labour and land informality.
- **Rural economies that are more diverse in their structure also register greater levels of competitiveness**.
- Therefore, attaining greater competitiveness of rural economies needs **policies to boost agricultural productivity** along with diversification efforts to increase income growth and strategies to improve land ownership, land and labour formalisation.
- **Lack of data at granular level and differentiating by typology (urban-rural)** constrain the analysis relevant to evidence-based policy making.

Well-being enablers

- **Colombian infrastructure has been a pending issue** to enable higher levels of rural and regional development, especially tertiary roads. Multimodality (e.g. deployment of the railway) can help improve connectivity.
- **The urban-rural gap in broadband connectivity and quality is among the largest in the OECD**, which undermines accessibility to markets and services.
- **Low education attainment and high dropout remain high in rural areas**, despite improvements in coverage.
- **Land informality is one of the major sources of instability** in rural areas, reaching an average 52% of rural priorities.
- **Security levels have improved but rural communities still face violence and illegal activities, which deter investment and attractiveness of some rural areas**.

- **Community network and quality of life are important** assets of rural regions, as people in Colombia's rural regions perceive greater social network support.
- **Trust in government is low** and has declined over time in the country, which is reflected in a lower voter turnout relative to OECD countries and whistle-blowers reporting corruption.
- **Colombian rural regions are a source of relevant environmental assets and perform better than other OECD regions in terms of** air pollution and production of clean energies. Yet, deforestation and low enforcement of waste and water management represent environmental risks. Likewise, rural communities are highly vulnerable to climate change.

Introduction

The chapter provides an overview of the main challenges and strengths of Colombian rural regions and outlines their economic, social and environmental trends *vis-à-vis* comparable Latin American and OECD countries. The chapter first revises the classification of rurality in Colombia *vis-à-vis* the OECD territorial methodology. It then examines the national context under which rural development is taking place. After this, the chapter outlines the main economic and demographic patterns of Colombian rural regions. Finally, it analyses different drivers of well-being for rural regions.

To enable a meaningful comparison of Colombian's performance against a relevant benchmark, the analysis in the chapter makes use of two country groups, one based on comparable Latin American countries and the other composed of all OECD countries:

- **The Latin American countries** are made up of the four Latin American economies: Argentina, Brazil, Chile and Mexico.
- **OECD country average**: international comparability with the OECD's 38 member countries has been established through a selection of indicators.

A territorial classification to better grasp the rural potential in Colombia

OECD countries have moved away from traditional definitions of rural as simply the remaining "leftover" space that is not urban, to delimitations of rurality that recognise different types of rural regions and thus help design policy responses best suited to their different challenges (OECD, 2020[1]).

Colombia's official definition: A modern proposal not yet fully adopted

In 1997, Colombia developed a methodology that identified urban areas as the main territorial criteria while defining rural areas as the residual. At the time, a Land Management Plan was approved (Law 388 of 1997) to distinguish urban municipalities as the territorial units that had road infrastructure and primary energy, water and sanitation networks. Instead, it defined rural as the land that was not suitable for urban use or was used for agricultural, livestock, forestry, natural resource exploitation and similar activities.

In 2014, an officially appointed commission of experts on rural development in Colombia (*Mission for the Countryside*) proposed a new territorial classification, which moved away from the urban-rural dichotomy and recognised different types of rural areas (DNP, 2014[2]) (Box 2.1). The suggested classification identifies four categories of municipalities, based on the size of the population, the population density and the proportion of the rural population, which was very much in line with OECD standards at the time (OECD, 2006[3]). The four territorial categories identified are: i) cities and agglomerations; ii) intermediate cities; iii) rural; and iv) dispersed rural. With this classification, the share of the rural population reached 30.4% in 2014, above the figure of 23.7% identified with the 1997 classification (Box 2.1). By 2014, the results revealed that 117 municipalities belonged to the category of "cities and agglomerations", 314 to "intermediate cities", 373 to "rural" and 318 to "dispersed rural". Overall, this methodology improves on the previous one as it establishes a more differentiated view of rurality and adopts an urban-rural continuum.

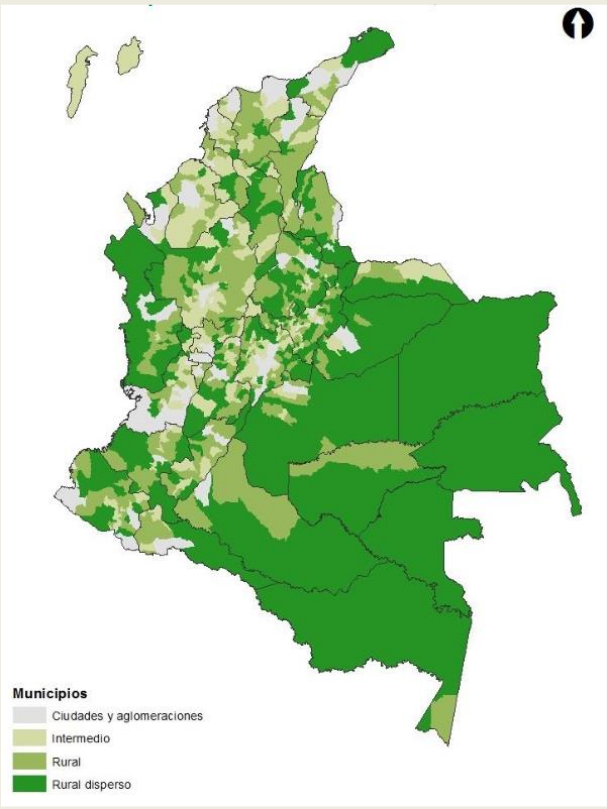
Box 2.1. Rural definition proposed by the Mission for the Transformation of the Countryside

The Mission for the Transformation of the Countryside (hereinafter the Mission for the Countryside) was a national government initiative that aimed to elaborate a sound and broad portfolio of instruments and public policies for the development of Colombian rural communities within a timeframe of 20 years. The first step in this new set of public policies was to improve the rural definition used in the country to reflect the variety of rural areas and improve the identification of territorial interdependencies.

The Mission for the Countryside uses three main criteria to classify municipalities: i) municipalities within the System of Cities*; ii) population density; and iii) urban-rural population ratio (Figure 2.1). Based on this, municipalities are classified as follows:

- **Cities and agglomerations**: Municipalities belonging to the System of Cities include: i) cities that present functional interconnectivity due to the daily commuting dynamics of the working population; ii) municipalities with a population equal to or greater than 100 000 inhabitants; iii) municipalities with less than 100 000 inhabitants in the municipal seat but with a strategic hierarchy at the sub-regional level; and iv) departmental capitals.
- **Intermediate cities**: Municipalities that present any of the following characteristics: i) population in the municipal seat between 25 000 and 100 000 inhabitants, and with a population density equal to or greater than 10 inhabitants/km^2; ii) population in the municipal seat of less than 25 000 inhabitants with a population density of 50 to 100 inhabitants/km^2, and more than 70% of its population is located in the municipal seat; iii) population in the municipal seat of less than 25 000 inhabitants with a population density greater than or equal to 100 inhabitants/km^2.
- **Rural**: Municipalities that present any of the following characteristics: i) population in the municipal seat between 25 000 and 100 000 inhabitants, and with a population density of fewer than 10 inhabitants/km^2; ii) population in the municipal seat of less than 25 000 inhabitants with a population density of 10 to 50 inhabitants/km^2 and more than 70% of its population is located in the municipal seat; iii) population in the municipal seat of less than 25 000 inhabitants with a population density of 50 to 100 inhabitants/km^2 and less than 70% of its population is located in the municipal seat.
- **Dispersed rural**: Municipalities and non-municipalised areas that present any of the following characteristics: i) population in the municipal seat of less than 25 000 inhabitants with a population density of fewer than 10 inhabitants/km^2; ii) population in the municipal seat of less than 25 000 inhabitants with a population density of 10 to 50 inhabitants/km^2, and less than 70% of its population is located in the municipal seat.

Figure 2.1. Degree of rurality in Colombia according to the Mission for the Countryside



Note: * In 2014, the national government published the National Policy for the Consolidation of the System of Cities in Colombia, which aimed to guide urban development to support economic growth and competitiveness, and improve the quality of urbanisation to upgrade people's well-being. The System of Cities is the third generation of national urban development policies since the 1998 Cities and Citizens policy and the 2004 "Guidelines to optimise urban development policy. For further information on the System of Cities, please visit: *Misión para el Fortalecimiento del Sistema de Ciudades* (DNP, 2020[4]).

Source: DNP (2014[2]), *Misión para la Transformación del Campo,* https://colaboracion.dnp.gov.co/CDT/Agriculturapecuarioforestal%20y%20pesca/Definicion%20Categor%C3%ADas%20de%20Ruralidad.pdf (accessed on 4 December 2021); OECD (2021[5]), "Colombian responses to OECD questionnaire on rural policy", Unpublished, OECD, Paris.

Yet, the 2014 definition has not been fully integrated into national statistics nor across all sectoral policies. The National Department of Statistics (DANE) still relies on the 1997 definition for its statistical data collection process to classify between "rural land" and "urban land". It mainly displays urban and rural statistics in two ways: urban as urban centres (*cabeceras* in Spanish) and rural as dispersed rural and populated centres (*centros poblados y rural disperse* in Spanish). According to this approach, the rural definition is based solely on qualitative criteria: those areas that are characterised by their dispersed disposition of houses and farms. For example, *populated centres* are defined as a concentration of at least 20 neighbouring or semi-detached houses located in the rural area of a municipality or a departmental township.

This approach leads to dichotomous territorial demographic and economic statistics that do not allow for differentiated trends among different types of rural areas or the recognition of different potential. For example, official statistics do not allow measuring the capacity of rural areas close to big cities to attract

people and businesses. Equally important is the fact that this traditional definition is also embedded in certain policy plans, strategies and investment allocation (e.g. strategy to deploy broadband), which can lead to a homogeneous view on rural issues and policies for rural communities with different characteristics. Moreover, the existence of both types of rural definitions undermines consensus on what rurality represents across different levels of government and other stakeholders.

Colombia can thus benefit from homogenising its rural definition for policy and statistical uses. The 2014 methodology to define rurality sets a good basis for a definition to be adopted across all levels of government and standardise the way society and local actors refer to rurality. This definition could eventually be further finetuned by moving away from the qualitative and administrative criteria as the starting point of the definition (e.g. municipalities with regional relevance in the case of intermediate areas) and by including a sense of proximity, distance or accessibility (e.g. distance to cities).

The Colombian sub-regionalisation under functional criteria: A crucial step to identify territorial functionality

On top of the 2014 categorisation of the degree of rurality at the municipal level, in the framework of the National Development Plan 2018-2022, the National Planning Department (DNP) carried out a territorial division exercise based on regional functionality, in line with the OECD regional classification (Box 2.2). The development of this territorial definition under a functional criterion was pivotal in order to transcend administrative and political criteria and to deliver policies to municipalities that operate as functional regional units.

The result was 101 sub-regions, which serve as a basis for the development of statistics and analysis not only at the national level but now also at the international level, as they are covered by the regional development framework of the OECD and its 38 member countries. All in all, Colombia made significant progress in defining functional sub-regions (TL3), which set the ground for the categorisation of regions in terms of the degree of rurality and in line with the OECD Principles on Rural Policy adopted by member countries in 2019 (OECD, 2019[6]) (see Principle 2: Organise policies and governance at the relevant geographic scale in Chapter 3).

Box 2.2. Definition of functional sub-regions in Colombia

Subregionalisation of Colombia's territory takes up the OECD Rural paradigm

The newly developed territorial approach of the DNP 2018-2022 takes up the OECD rural territorial classification paradigm, a commitment to thinking about the territory in a functional way beyond political-administrative boundaries, aligning the country with the OECD's regional development approach.

To this end, a classification based on previous exercises (e.g. System of Cities and Functional Territories) was carried out to divide the country into sub-regions in such a way that functional criteria took precedence over administrative or political criteria. This territorial functionality is depicted through commutation flows and contiguity. Additionally, the notion of influence associated with the distance (time) between territories is introduced. This influence component is identified on the basis of: i) the urban population size of the municipality; as well as ii) the gross domestic product (GDP) (excluding mining); and iii) the number of enterprises in the municipality. Moreover, in order to strengthen the statistical component of the methodology, five workshops were held in different areas of the country with decision-makers, organisations and actors in the territory in order to validate the exercise and receive proposals for adjustments to the process described above.

This led to the definition of 101 sub-regions, which in several cases exceed political boundaries (only 30 sub-regions remain within a single department). In total, 93% of the sub-regions are made up of

9 sub-regions. The advantages described by the DNP include: i) **potentiating territorial associativity** and investment in regional projects on a supra-municipal scale, ii) **connecting territories** and taking advantage of economies of scale in the provision of public services and the concurrence of sources of investment; iii) improving the targeting of **investments in public goods** that generate spill-overs; iv) strengthening intermediate levels of multilevel governance; and v) **generating internationally comparable information reports**, which respond to the heterogeneity of the territory.

Source: RIMISP-DNP (2018[7]), *Lineamientos conceptuales y metodológicos para la definición de una subregionalización funcional en Colombia*, https://colaboracion.dnp.gov.co/CDT/Desarrollo%20Territorial/; CEPAL (2016[8]), *Configuración territorial de las provincias de Colombia*, http://www.dane.gov.co/files/censo2005/provincias/subregiones.pdf.

The OECD regional typology

Building on the efforts of territorial categorisation in Colombia, this review adopts the OECD regional classification (Territorial Level 2 [TL2] and Territorial Level 3 [TL3]) to better understand rural trends and facilitate regional comparability across OECD countries (Box 2.3). This classification identifies two levels of geographic units within OECD countries: i) large regions (TL2), which represent the first administrative tier of subnational government that in the case of Colombia is Departments (interchangeably referred to as regions in this review); and ii) small regions (TL3) that for Colombia is based on the efforts to build provinces or sub-regions (RIMISP-DNP, 2018[7]; CEPAL, 2016[8]; DANE, n.d.[9]). Both levels of regions encompass the entire national territory.

The OECD regional approach identifies the degree of rurality of regions based on density, population thresholds and their level of accessibility to cities (understood as Functional Urban Areas-FUAs). It then takes into account the relative location of rural places with respect to FUAs and introduces the idea of spatial continuity between urban and rural. TL3 regions cover the entire territory within countries, while FUAs only capture a sub-sample of the territory. This territorial methodology is used for the 38 member countries, allowing international comparability based on territorial functionality (presence of and access to FUAs) (Box 2.3). While this does not intend to replace Colombia's 2014 definition or the recent definition of functional sub-regions, it can provide a classification of international comparability based on similar criteria with other OECD countries.

Box 2.3. OECD TL3 revised typology

The OECD regional database collects and publishes regional data at two different geographical levels, namely large regions (Territorial Level 2, TL2) and small regions (Territorial Level 3, TL3). Both levels encompass entire national territories. TL2 regions tend to represent the first administrative tier of subnational government (e.g. régions in France, *estados* in Mexico or states in the United States). TL3 regions are smaller territorial units that make up each TL2 region (e.g. *départments* in France or provinces in Spain). For the case of Colombia, TL3 are based on the definition of provinces (sub-regions).

The OECD has adopted a new typology to classify administrative TL3 regions. This classification allows measuring socio-economic differences between regions, across and within countries. It is based on the presence and access to functional urban areas (FUAs), a concept defining cities and the urban hinterland, in other words urban economic agglomerations.

By controlling for these regional characteristics, the typology classifies TL3 regions into two groups, metropolitan and non-metropolitan. Within these two groups, five different types of TL3 regions are identified. Metropolitan regions (MRs) adopt as a threshold 50% population of the TL3 (small) region

living in an FUA of at least 250 000 people; non-metropolitan regions (NMRs) use 60-minute driving time as a threshold, a measure of access to an FUA.

The methodology follows the criteria below:

- **Metropolitan TL3 region**, if more than 50% of its population live in an FUA of at least 250 000 inhabitants. MRs are further classified into:
  - Large metro TL3 region, if more than 50% of its population live in an FUA of at least 1.5 million inhabitants. This region is labelled as a "region with a very large city" or "region with a city>1M".
  - Metro TL3 region, if the TL3 region is not a large metro region and 50% of its population live in an FUA of at least 250 000 inhabitants. This region is labelled as a "region with a large city" or "region with a city>250k".

Non-metropolitan TL3 region, if less than 50% of its population live in an FUA. NMRs are further classified according to their level of access to FUAs of different sizes into:

- With access to (near) a metro TL3 region, if more than 50% of its population live within a 60-minute drive from a metro (an FUA with more than 250 000 people); or if the TL3 region contains more than 80% of the area of an FUA of at least 250 000 inhabitants. This region is labelled as a "region near a large city" or "region near a city>250k".
- With access to (near) a small/medium city TL3 region, if the TL3 region does not have access to a metro; 50% of its population have access to a small or medium city (an FUA of more than 50 000 and less than 250 000 inhabitants) within a 60-minute drive; or if the TL3 region contains more than 80% of the area of a small or medium city. This region is labelled as "region with/near a small/medium size city" or "region with/near a city <250k".
- Remote TL3 region, if the TL3 region is not classified as NMR-M or NMR-S, i.e. if 50% of its population do not have access to an FUA within a 60-minute drive. This region is labelled as a "remote region".

The procedure described leads to more statistical consistency and interpretable categories that emphasise urban-rural linkages and the role of market access. Throughout this report, reference will be made to "rural regions" when referring to the group of non-metropolitan regions

Source: OECD (2020[11]), *Rural Well-being: Geography of Opportunities*, https://doi.org/10.1787/d25cef80-en; Fadic, M. et al. (2019[10]), "Classifying small (TL3) regions based on metropolitan population, low density and remoteness", , https://doi.org/10.1787/b902cc00-en.

Figure 2.2. OECD countries by share of the population in rural regions (TL3), 2021

Note: The urban-rural population share has been calculated as the percentage of the population living in metro regions over the total population, rural as the share of the population in non-metro regions. OECD refers to the unweighted average.
Source: OECD (2022[11]), *Regional Economy (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021).

StatLink https://stat.link/bvyz9o

According to the OECD regional methodology, Colombia's share of the population living in rural regions (42.1% by 2021) is slightly higher than the OECD average (41.4%) and other OECD Latin American countries (Chile, 30% and Mexico, 34.7%). This OECD methodology depicts a territorial classification that looks at rurality through an internationally comparable regional lens where Colombia is relatively more rural than territorial classifications with a municipal focus, such as the proposed 2014 rural definition (30.4%) and DANE's statistical definition (24% by 2021). Nevertheless, when using territorial methodologies at a most granular level, Colombia remains a relatively high-urbanised country in international comparisons, as identified through other international and national definitions of urbanisation (OECD, 2022[12]).[1]

Most of the rural population in Colombia locates within remote rural regions (16.9%), almost twice the level of concentration in these types of regions across the OECD (8.9%). Regions with/near a small/medium size city concrete the second greatest share of the rural population (14.2%), also above the share of OECD rural population located in these types of regions. Table 2.1 shows a comparison between the OECD and Colombia of the share of the population living in each type of region.

Table 2.1. Distribution of regions (TL3) according to the degree of rurality, Colombia and OECD, 2021

Share of population per region (%)

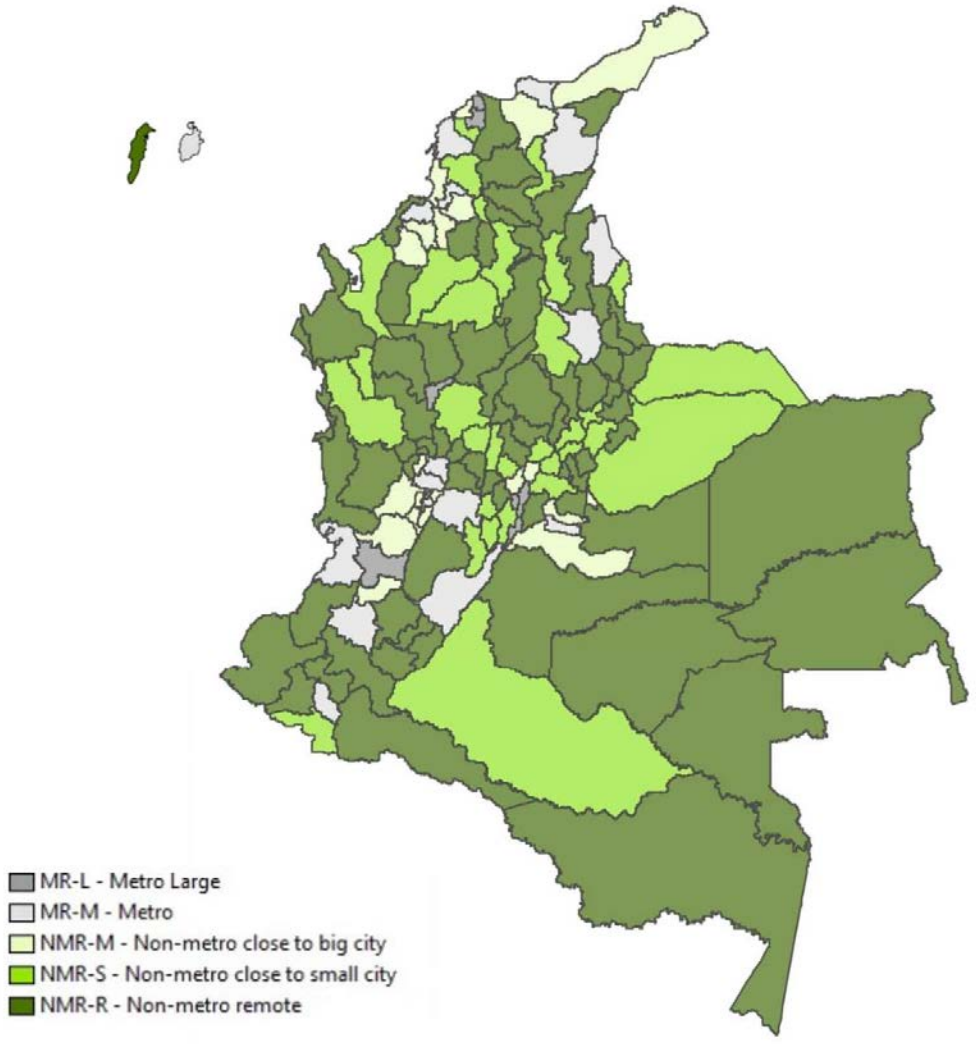
	Metropolitan regions		Rural regions		
	Regions with a very large city	Regions with a large city	Regions near a large city	Regions with/near a small/medium size city	Remote regions
Colombia	36.26	21.68	10.88	14.24	16.94
OECD	41.7	28.4	12.5	7.8	9.5

When looking at the administrative areas, 88% of municipalities are classified as rural, with an important share of municipalities in remote rural regions (51%). Table 2.2 shows the distribution of municipalities by the different types of regions according to the OECD typology explained:

Table 2.2. Municipalities of Colombia by OECD typology, 2021

	Number of municipalities	Share over total municipalities (%)
Metro large	36	3
Metro	96	9
Non-metro close to a big city	131	12
Non-metro close to a small city	290	25
Non-metro remote	569	51

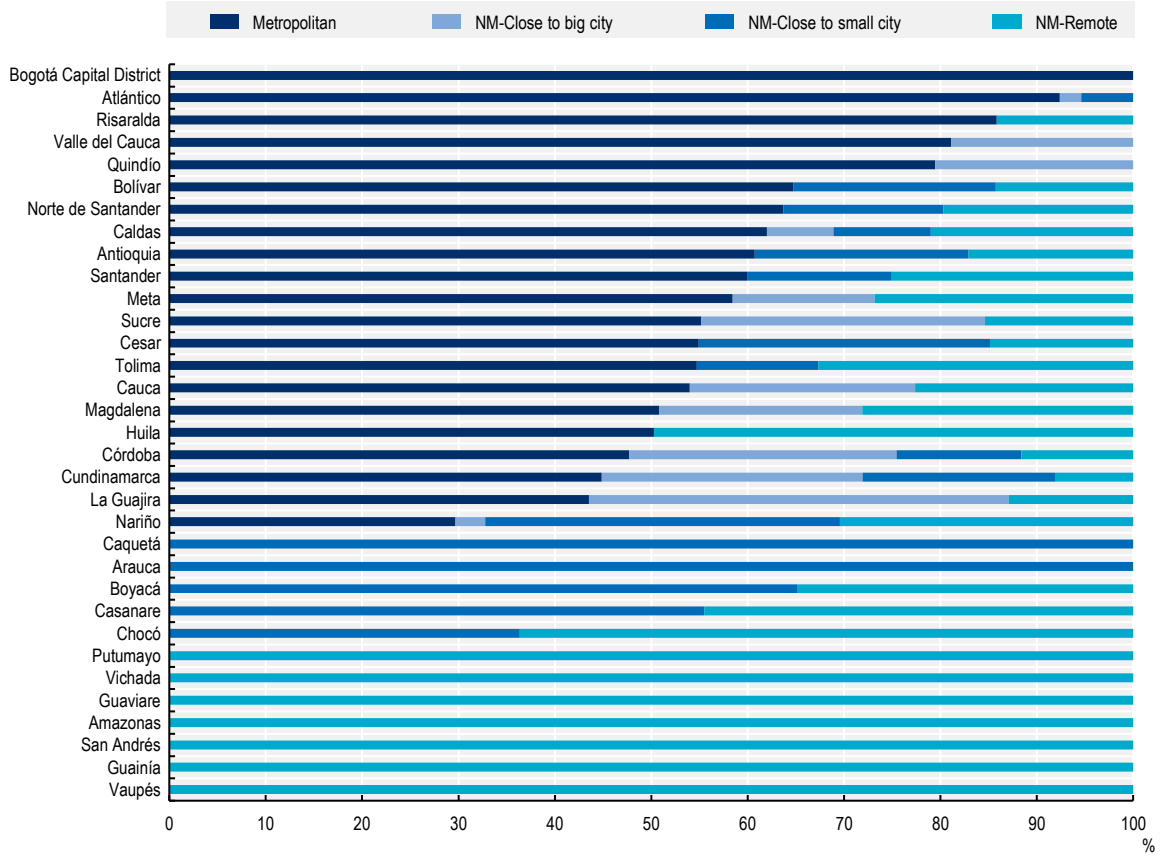
Figure 2.3. Degree of Rurality in Colombia, according to OECD (TL3) regional classification



Source: OECD calculation based on the OECD TL3 regional methodology, OECD Regional Statistics https://www.oecd.org/regional/regional-statistics/.

In Colombia, departments (TL2 regions) are the territorial level with the largest volume of information and data. Therefore, this report uses regional data (TL2) to identify some of the rural development trends in the country, when the information at the provincial (TL3) level is not available. To do so, this review classifies the degree of rurality of Colombian regions (TL2) according to the share of people living in rural TL3 regions (provinces) (Figure 2.4). The result displays a degree of rurality at the regional level from regions in which 100% of people live in rural provinces (e.g. Guainía, Vaupés) to regions like Bogotá where everyone is considered urban.

Figure 2.4. Share of the population by OECD regional typology in Colombia, 2021



Source: OECD territorial methodology with data from DANE (2022[13]), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022).

Setting the scene: The Colombian context

Colombia is a country located in the north-western part of South America, with a land surface area of 1 141 748 km², which makes it the 5th largest country across both Latin America and OECD countries. It borders in the east with Brazil and Venezuela, in the south with Ecuador and Peru, and in the west with Panama, and is the only South American country with coasts on the Pacific Ocean and the Caribbean Sea.

Colombia is the second most populated country in South America, reaching 51 million inhabitants in 2021, with 7.18 million inhabitants in its capital Bogotá (DANE, 2022[13]). The 1991 Constitution establishes Colombia as a unitary and decentralised republic that is divided administratively and politically into 33 divisions: 32 departments (TL2 regions), which are governed from their respective capital cities, and a capital district, Bogotá (also included as TL2 region in this report). Colombia is a highly concentrated country, both demographically and economically.

The country has a unique diversity, ranking as the 3rd most biodiverse country in the world (15% of the world's total) thanks to its great variety of climatic areas. Colombia's thermal floors are: paramo, cold, temperate and warm, which in addition to their particular climate, are also characterised by the fact that each thermal floor is home to unique species and agricultural production. Colombia has one of the most representative ethnic presences in South America. Amerindians, African immigrants and Hispanic immigrants from the colonial era are the predecessors of the 5 recognised ethnic groups: Indigenous (4.4% of the national population), Afro-Colombians (6.7%), Raizal (in San Andrés and Providence and Santa Catalina Islands, 0.05%), Palenquero (mainly located in the municipality of San Basilio de Palenque,

0.01%) and gypsy (0.0006%) populations inhabit the territory and make up Colombia's ethnic diversity (DANE, 2018[14]; Ministry of Health and Social Protection, 2020[15]).

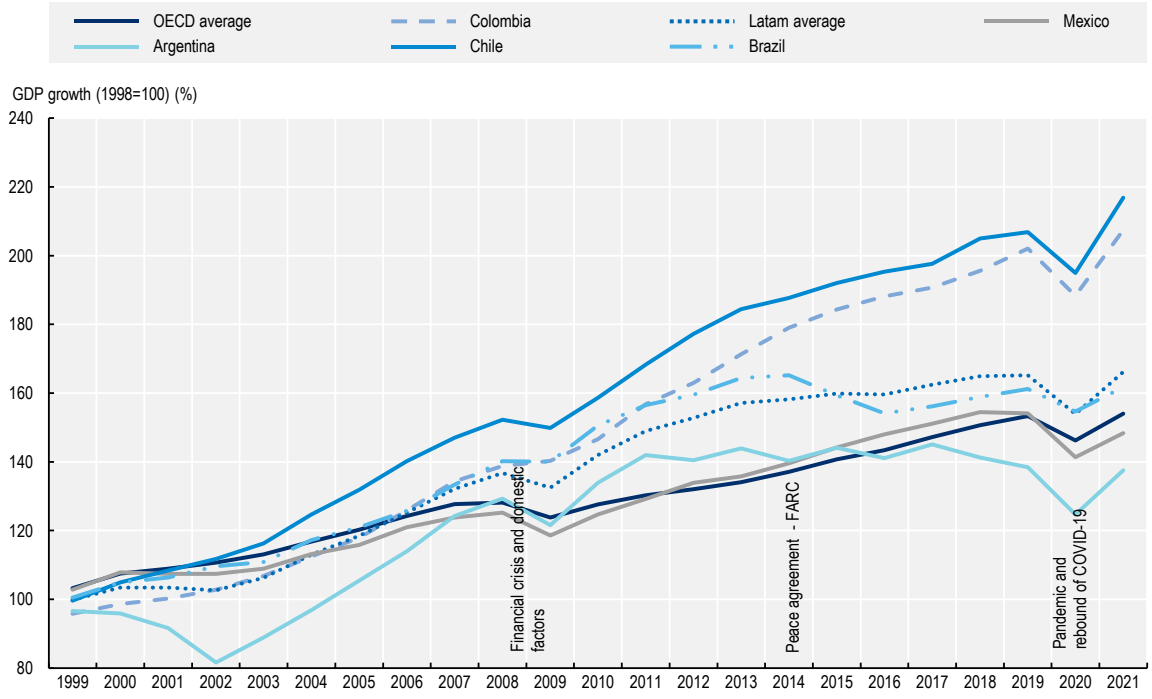
Colombia's economy is the fourth largest in Latin America in terms of GDP (World Bank, 2020[16]), after Brazil, Mexico and Argentina. It stands out in the international scene for the significant growth it has experienced in the last decade in the export of goods and for the attractiveness it offers to foreign investment and tourism. Its economy is heavily based on services at 64.2% (vs. 71.4% OECD average), followed by industry, including construction, at 28.8% (26.0% OECD average) and agriculture, at 7.1% (2.6% OECD average) (OECD, 2022[17]). Colombia's main exports are mineral fuels, lubricants and related materials representing 54.1% of the total, followed by food and live animals at 13.2%. Its net trade balance is negative, as exports represent 15.9% of the Colombian economy while imports amount to 21.7%.

Agriculture is gradually reducing its weight in the national and rural economy. Despite still employing most rural workers (62%), the sector's share of national GDP declined by more than half over the past decades, from 14% in 1995 to 6% in 2020. The diversity of the country's climatic soils makes Colombia one of the world's top 5 producers of coffee, avocado and palm oil and one of the world's top 10 producers of sugar cane, banana, pineapple and cocoa.

Colombia has steadily strengthened its economy over the last two decades

Over the last two decades, Colombia enjoyed remarkable economic stability and growth (Figure 2.5). Indeed, Colombia's GDP growth rate averaged 3.8% per year during that period, which was coupled by a declined in the unemployment rate (from 15.1% in 2001 to 13.4% in 2021). Even so, deep structural problems remain in the labour market, such as high informality, where women and youth were particularly affected not only during the pandemic but also since the 2008 crisis.

Figure 2.5. GDP growth in Colombia, Latin America and OECD, 1998-2021



Note: GDP, purchasing power parities (PPP) (constant 2017, in USD).
Source: Own elaboration with data from World Bank (2021[18]), *Database*, https://data.worldbank.org/indicator/ (accessed on 2 November 2021).

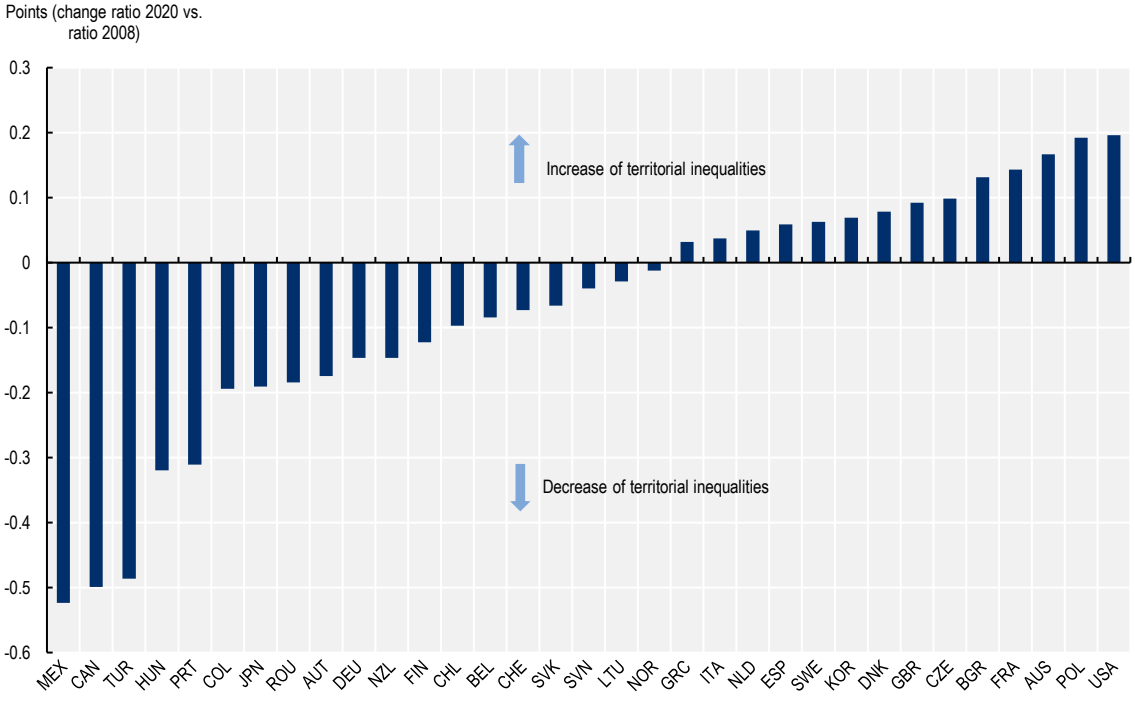
StatLink https://stat.link/v9fcht

After the global financial crisis and until the health crisis that led to an economic crisis in the wake of the COVID-19 pandemic in 2020, Colombia's economy grew solidly, above many Latin American countries such as Brazil, Chile or Mexico. Colombia experienced a 39.1% increase in its economy between 2012 and 2019 (the OECD average was 21.3%), which was then hit hard by the arrival of COVID-19 with a 6.8% drop in GDP (4.9% in the OECD). Colombia's economy surpassed the pre-crisis level in the third quarter of 2021 and GDP is projected to grow by 5.5% in 2022 and 3.1% in 2023. Private consumption is the main driver of the recovery as employment picks up, although at a slower pace than economic activity (OECD, 2022[19]).

The economic growth after the 2008 crisis has come with a reduction of regional inequalities. In a country with an important historic income gap between the richest regions and poorest ones, reducing inequalities is an important objective to improving well-being and social cohesion in the country. During 2008 and 2018, Colombia was the sixth OECD country that registered the greatest drop in regional income inequality (measured as the ratio of the top 20% richest region over the bottom 20% poorest region) (Figure 2.6). This closing of the gap was associated with the greater growth of regions dependent on natural resources, which took advantage of the higher prices of commodities in the post-crisis period.

Figure 2.6. Change in regional (TL2) income inequalities, 2008 vs. 2020

Change between GDP per capita ratio of the top 20% of richest regions/bottom 20% of poorest regions between 2008 and 2020



Source: OECD (2022[17]), *OECD Economic Surveys: Colombia 2022*, https://doi.org/10.1787/04bf9377-en.

The demographic concentration has increased with the flow of regional migrations towards medium-sized cities. Whereas, the country's economy has been deconcentrated through the convergence of its regions. This has important implications and is a relatively positive starting point for capitalising on pockets of growth in these medium-sized cities. Moreover, it has the potential for spreading to the surrounding rural regions and clustering some of the growth of these economic clusters, more delocalised from large cities than is common in OECD countries.

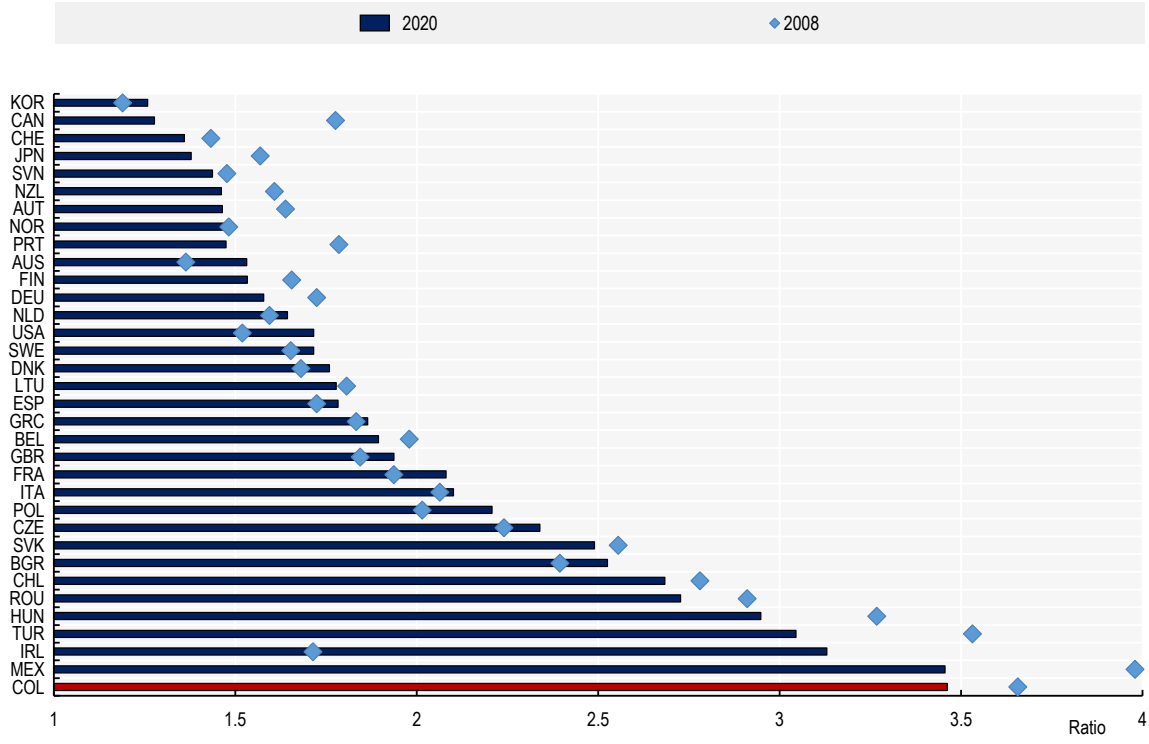
Yet, regional inequality remains high, with room for improvement

Despite the progress in closing the regional gap in the last decades, Colombian remains the OECD country with the highest income gap between the richest and poorest regions (Figure 2.7). This territorial inequality in Colombia translates into an urban-rural regional gap, where Bogotá has almost five times the GDP per capita of a rural region like Vaupés (Figure 2.8).

Thus, the last two decades of sustained growth have not been evenly spread across the territory and have involved rapid growth in urbanisation. This was the result of massive migration flows from rural to urban areas since the late 1930s (Camargo et al., 2020[20]), partly due to the effects of violence that affected rural areas more. As in most OECD countries, agglomeration economies tend to achieve larger economies of scale, with higher sectoral productivity that allows higher wages than those located in less densely populated regions (OECD, 2020[1]). The regions with the lowest GDP per capita in the country coincide with those that rank as the most rural, e.g. Vaupés and Vichada are the two regions with the lowest economic level (DANE, 2022[21]). As in other OECD countries, rural regions that register the highest GDP per capita are resource-rich regions; in Colombia, these regions specialise in fossil fuels (e.g. Casanare, Meta).

Figure 2.7. Regional disparity in GDP per capita, OECD countries, 2008-20

Ratio of the top 20% richest TL2 regions over the bottom 20% poorest regions, GDP per capita

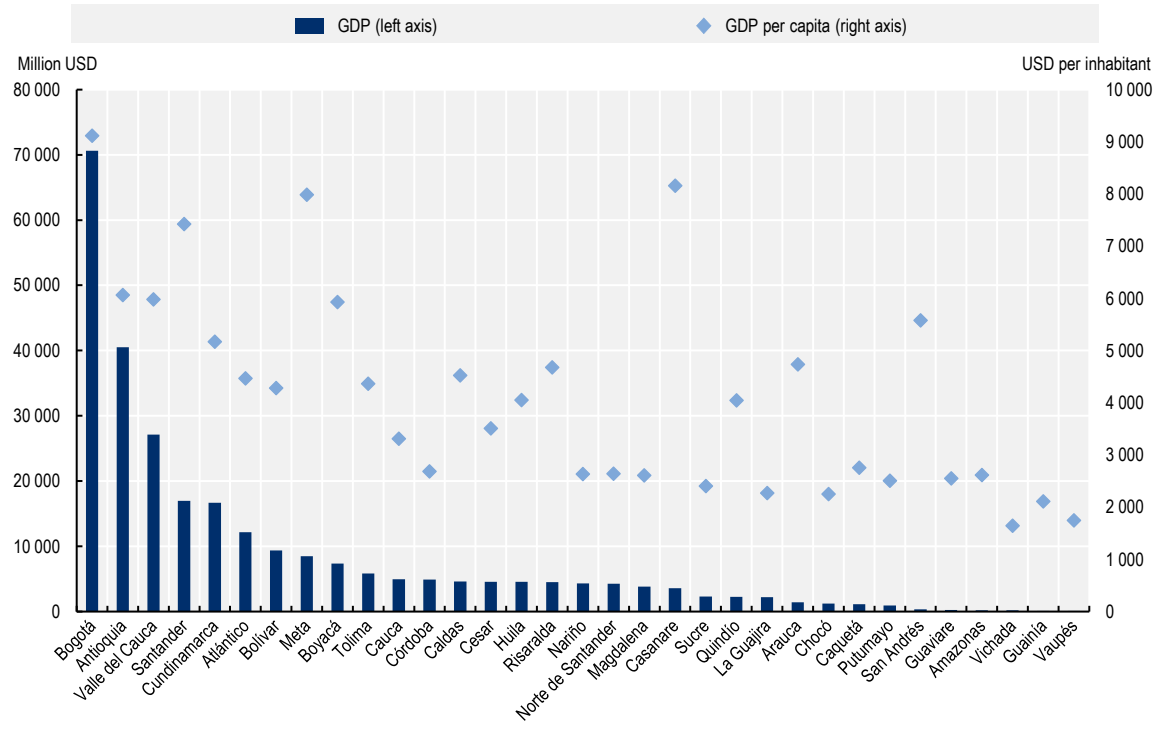


Note: The GDP per capita of the top and bottom 20% regions are defined as those with the highest/lowest GDP per capita until the equivalent of 20% of the national population is reached. Based on GDP per capita values expressed at 2015 constant prices, using OECD country deflators and converted into constant USD PPPs, 2015 reference year. TL2 regions in Colombia are departments

Source: OECD (2022[11]), *Regional Economy (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021).

StatLink https://stat.link/vr2bd8

Figure 2.8. GDP and GDP per capita by department in Colombia, 2021



Note: GDP at current prices 2020.
Source: OECD (2022[17]), *OECD Economic Surveys: Colombia 2022*, https://doi.org/10.1787/04bf9377-en; DANE (2022[13]), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022).

Inequalities are not solely monetary but affect a wide range of multidimensional factors that together dictate the degree of well-being of the population. Thus, such urban-rural regional disparities also reflect in well-being inequalities, including educational outcomes, access to digital connectivity labour and land informality and security, among others (see section on well-being enablers). Effective access to quality services also lags behind urban areas, with rural areas facing lower education attainment and healthcare coverage (Chapter 4), poorer quality and accessibility to transport and water infrastructure as well as lower broadband connectivity. Ultimately, the socio-economic disparities across the country become a more complex task where inequality affects access to enabling development factors, beyond just monetary inequality.

Moreover, Colombia ranks as one of the OECD and Latin American countries where a low-income citizen requires more time to reach the national median income, 11 generations, which is 2 more generations than in Brazil (9 generations), 3 more than Chile (6) and 5 more than Argentina (6), and far above OECD average (4.5) (OECD, 2018[22]). Nevertheless, Colombia's reform of the General System of Royalties (2011-12) has helped reduced regional inequalities (OECD, 2017[23]) and its most recent reform in 2020 should help accelerate the investment in the poorest regions and reduce regional economic disparities over time.

Despite the economic performance of the last decades, the growing risks of a global economic slowdown in the short term, due to tighter financial conditions and inflationary pressures, would impact Colombia's economic growth. Therefore, policy must ensure that the economic slowdown does not translate into greater territorial inequality in the country.

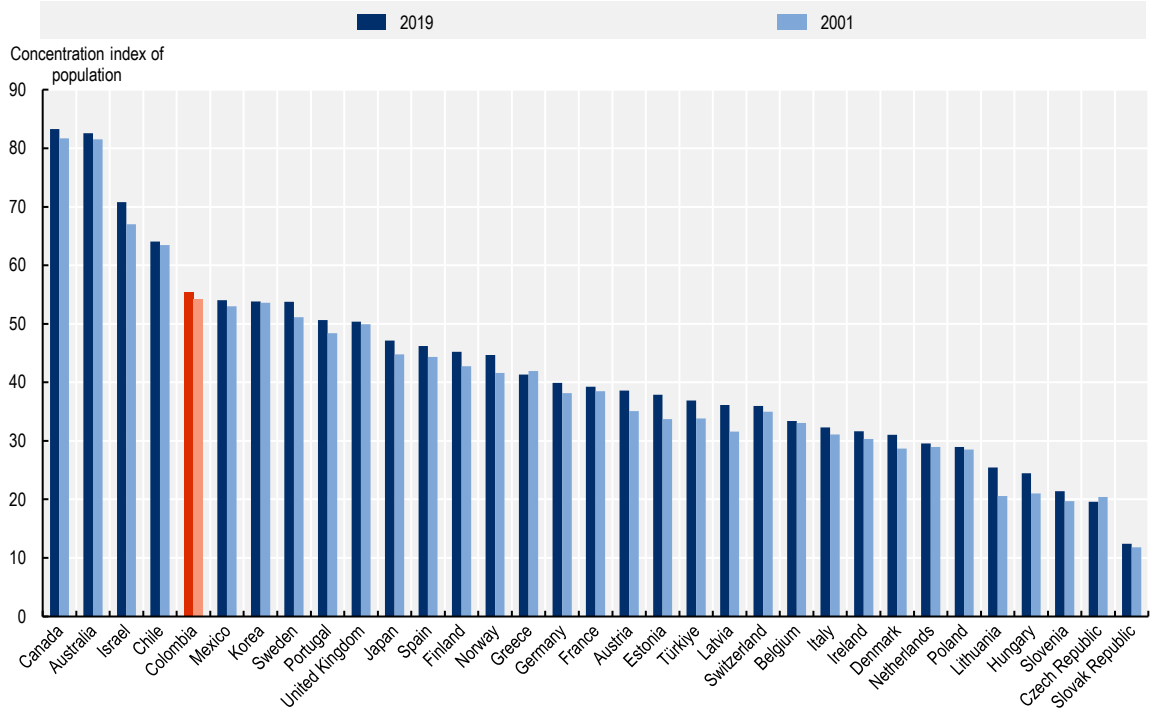
The population in Colombia has concentrated at a faster pace than its economy

Colombia has experienced a territorial concentration of its population in the last decade and ranks as one of the most demographically concentrated countries in the OECD (Figure 2.9). In addition to the rapid urbanisation trend in Colombia, the country's geography, based on the presence of extensive forests like the Amazon, desert land and mountainous terrain, has led to a concentration of settlement patterns in a few geographic areas. In 2019, the country registers the fifth greatest territorial concentration after Canada, Australia, Israel and Chile.

Unlike many Latin American countries, such concentration has not occurred in one single large metropolitan region (above half a million inhabitants) but across different medium/small FUAs, which reveals the polycentric structure of the country (OECD, 2022[12]). This distribution of settlement patterns highly concentrated around specific urban zones (Colombia has a classified system of 18 cities) could be mobilised as an opportunity to unlock urban-rural synergies around pockets of growth.

While a large structure of small cities could in principle bring challenges in terms of achieving economies of scale across all of them, it can also bring benefits to unlock development poles based on synergies with surrounding rural areas. Mobilising these opportunities implies particular strong co-ordination, locally across the municipalities but also with national policies (this would be discussed in the next chapters of this review) (OECD, 2021[24]).

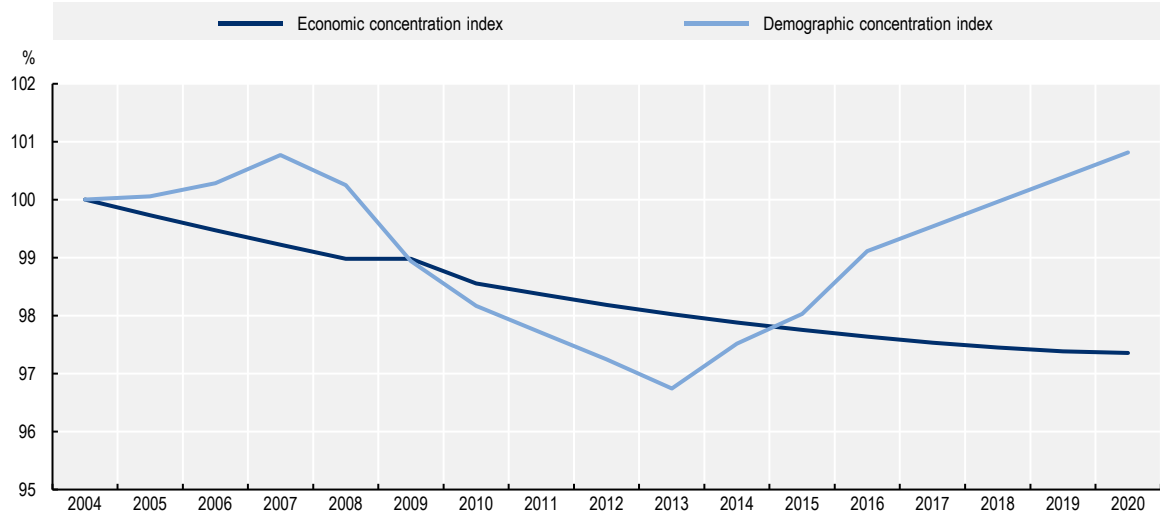
Figure 2.9. Geographic concentration index of the population in OECD countries, 2001 and 2019



Note: The geographic concentration index depicts the spatial distribution of the population within Colombia, comparing the resident population share and the land area weight over all TL2 regions. The index ranges between 0 and 100: the higher its value, the larger the regional concentration. The geographic concentration index of population, which is comparable across countries, is calculated as: $\sum (|pi - ai| / 2) * 100\ N\ i = 1$, where pi is the population share of region *i*, ai is the area share of region *i*. Calculated with TL2 regions.
Source: Own elaboration with data from OECD (2022[11]), *Regional Economy (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021).

Moreover, the analyses on the evolution of geographical concentration reveal a relatively lower concentration of economic activities than people (Figure 2.10). It might be indicative of the relevant role of extractive industries in the economy, which concentrates high value in a few regions that have a low share of the population (e.g. Casanare). Such areas of economic activity can be further mobilised with particular policies to create more diversified economies with greater linkages to urban regions.

Figure 2.10. Concentration index change of population and economy at the TL2 level in Colombia, 2004-20



Note: The geographic concentration index offers a picture of the spatial distribution of population and economy within a country, as it compares the share of the population and the land area of each region. 2004=100. The year 2005 has been adjusted due to outliers using previous and subsequent values.
Source: Own elaboration with data from DANE (2022[13]), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022).

The post-COVID19 period has been used as an opportunity to bridge the territorial divide

The Colombian economy has made a remarkable recovery from the COVID-19 crisis, leaving an opportunity to redirect these efforts and a positive trend for the country's territorial cohesion. In fact, GDP is estimated to grow by 5.5% in 2022 (OECD, 2022[17]). However, while some regions have coped relatively well with the dual health and economic crisis, others have lagged, with significant effects on the well-being of their populations. Overall, COVID-19 has exacerbated territorial inequalities that were already present before the health crisis. Medium-term growth prospects depend on reforms to expand social protection and boost productivity. Continuing efforts to make the rural economies converge is an important process that brings not only economic prosperity but also social stability and peace.

During COVID-19, the unequal access to broadband and its quality further boosted territorial inequalities in well-being in Colombia. As in most OECD countries, in Colombia, rural regions are the ones with lower shares of the population with broadband connectivity and digital skills (see the section on well-being enablers), which undermined the capacity of rural inhabitants to access work opportunities, government services, education and health though virtual means. The post-pandemic context provides an opportunity for the government of Colombia to close territorial inequalities in access to services by improving broadband connectivity and digital skills as well as implementing strategies to attract remote workers to rural areas (see Chapters 3 and 4).

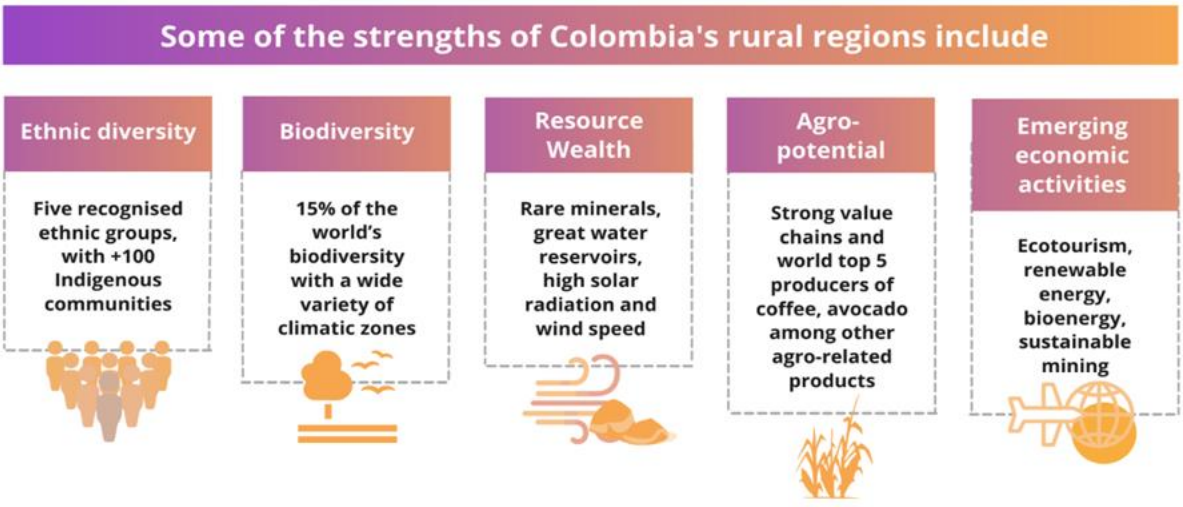
In a nutshell: Assets and challenges of rural regions in Colombia

Overall, Colombia's rural regions have a number of assets to be mobilised, including an outstanding diversity in terms of demography and environment: they are relatively young and have emerging economic activities outside agriculture.

Table 2.3.Main assets of Colombian rural regions

Opportunity	Description
Demographic bonus	Contrary to the trend of ageing population across OECD countries, Colombian rural regions benefit from a high share of young population (26% in 2021), far above the OECD average (17%) and other OECD Latin American countries, like Chile (20%). This demographic structure is a bonus for rural regions as young people are source of innovation and vitality for communities. Regions close to small cities have the highest share of young population in Colombia (27%),
Ethnic diversity	Colombia is a source of culture, with a multi-ethnic and multilingual country including five recognised ethnic groups: i) Indigenous; ii) Raizales; iii) black or Afro-Colombian population; iv) Palenqueros; and v) Roma or Gypsy population. This multiculturalism is a source of alternative environmental knowledge and touristic potential as well as an amalgam of know-how that is part of Colombia's culture.
Biodiversity	The country has 15% of the planet's biodiversity, ranking it as the 1st country in the diversity of birds and amphibians. This is both an opportunity and a responsibility, giving scope for tourism exploitation while requiring conservation/restoration programmes. This biodiversity has attracted international attention for its high environmental value, especially in the current context of ecological value awareness (FAAE, 2020[25]).
Resource wealth	The country has a wealth of very important resources, ranking 6th in water volume, with high solar radiation, 2nd in Latin America in terms of in wind speed, fertile land with no growing seasons and rare minerals. Its sustainable resource exploitation can be one of the most important development pathways for the country, especially towards the transition to a low-carbon economy that OECD countries are striving for.
Agriculture value chains	The strong value chains/innovation of sectors such as coffee or cocoa can serve as a guide for many other agricultural sectors. The country already has a number of agriculture associations that can further promote economies of scale of small farmers, which are the majority in the county (71% of farms are lower than 5 hectares).
Emerging rural sectors	
Eco and cultural tourism	To help preserve the environment, empower minorities and boost traditional economic activities. For example, Colombia has great potential for birdwatching tourism (estimates of up to 7 500 new jobs in 10 years) with existing projects involving Indigenous communities (in Guajira). If it is linked to other sectors (e.g. agriculture), tourism is capable of generating greater indirect economic effects at the local level (e.g. gastronomic routes).
Renewable energy projects	To mobilise existent natural assets (e.g. wind, solar) to decarbonise and increase the resilience of the country's energy mix, while creating new income sources for rural communities (e.g. though benefit sharing mechanisms).
Bioenergy	To benefit from the abundant raw material of agriculture, as most of the organic waste (99%) produced in Colombia comes from agricultural and livestock activities (e.g. palm, sugarcane, biomass from agriculture or organic waste). It can provide affordable energy for rural communities and an alternative income for farmers.
Environmentally sustainable mining	To leverage the geological potential of the country to benefit from the increasing global demand for the strategic minerals needed to develop clean energy technologies, while unlocking new job opportunities locally and ensuring greater social benefits for rural communities with strategies for environmental protection and involvement of local communities.

Infographic 2.1. Summary of strengths of Colombia's rural regions



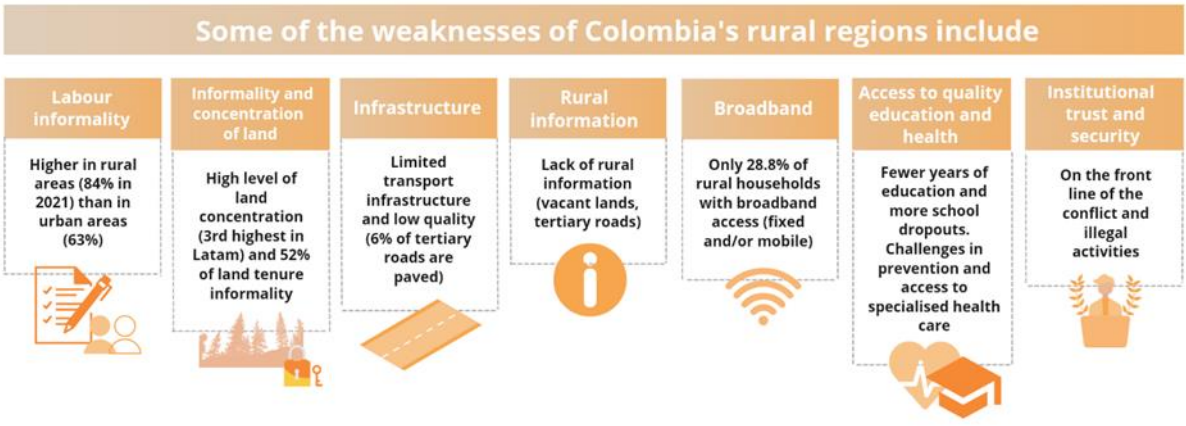
However, the country faces a number of medium- to long-term challenges that are bottlenecks for sustainable rural development.

Table 2.4. Main challenges of Colombian rural regions

Challenge	Description
Land informality and high concentration	Land in Colombia is highly concentrated among few landowners. In 2017, the average Gini coefficient of land ownership in Colombia was 0.86 (UPRA, 2017[26]) (where 1 corresponds to total concentration), above the level in Latin America (0.79), Europe (0.57) or Africa (0.56) (Ariza, 2022[27]) Moreover, the rate of land tenure informality reached 52% by 2019, with at least 75 municipalities that register land informality rates between 75% and 100% (UPRA, 2020[28]).
Labour informality	Labour informality is higher in rural areas (84% in 2021) than the country average (63%). This is partially due to the high labour informality in agriculture (88% informality). In addition, informality is greater among women (48% vs. 46% in men) (DANE, 2022[29]).
Lack of information	There is a lack of information relevant to rural development in Colombia. There is no clarity on the number of vacant lands (Baldíos) or tertiary roads. There is no consolidated information system with characteristics of rural farmers or potential beneficiaries of productive programmes.
Poor transport infrastructure	Colombia's road density (530 km per million inhabitants) is below countries of a similar level of development in Latin America such as Brazil (1 066 km) and Mexico (1 188 km). Departments in the east and west of the country are still not connected to the primary road network. Moreover, only 6% of the tertiary roads with available information are paved and many communities, whose infrastructure is still inefficient, are only reachable by river. In the 2019 World Economic Forum (WEF) Global Competitiveness Report, Colombia ranked 102 out of 140 economies in terms of road quality.
Low broadband connectivity	Given the geographic difficulty to reach rural regions with transport infrastructure, broadband access is likely one of the most important drivers of rural development in Colombia. In rural areas (according to the DANE definition), only 28.8% of households located in rural areas have broadband access (fixed and/or mobile), in contrast with 70% of households in urban areas. Moreover, fixed broadband speeds in regions far from metropolitan areas are on average 79% slower than the national average (2021). Colombia is one of the countries with the biggest urban-rural gap in broadband speeds in the OECD area.
Reduced access and quality of services	*Education*: About 70% of children and youth without education in Colombia are located in rural areas. The rural population has on average 3 fewer years of education than the urban population and only 5.1% of the rural population over 17 years of age has a higher education degree. Likewise, the dropout rate in upper secondary and tertiary education is higher in rural areas (45% of rural youth aged 18-22 do not complete upper secondary education). *Health*: Issues in healthcare access start from maternity care in rural areas, with remote rural areas registering 86 maternal deaths per 100 000 live births per year, compared to 42 maternal deaths in urban areas in 2019. *Electricity*: In 2021, about 10.9% of Colombian rural households lacked an electricity service, far above the 0.1% of urban households lacking this service. *Water*: In 2021, about 47.5% of Colombian rural households lacked access to tap water, far above the 2.5% of urban households lacking this service. Likewise, rural areas on average have a risk linked to their water quality (Water Quality Risk Index for Human Consumption of 29.9 in 2019), almost 3 times as high as urban areas (11.3).

Trust in institutions and security	The historical violence in the country had a greater impact on rural communities, becoming a barrier to the development of these areas. It impacted the infrastructure and augmented transaction costs and land conflicts. Moreover, the conflict also undermined communities' trust in institutions, which created low levels of collaboration in some regions. Overall, in Colombia, public trust in government is low (37% of the population reported trust in government in 2019) relative to OECD (52%) and has declined over time (51% in 2017) (OECD, 2022[17]).

Infographic 2.2. Summary of weaknesses of Colombia's rural regions



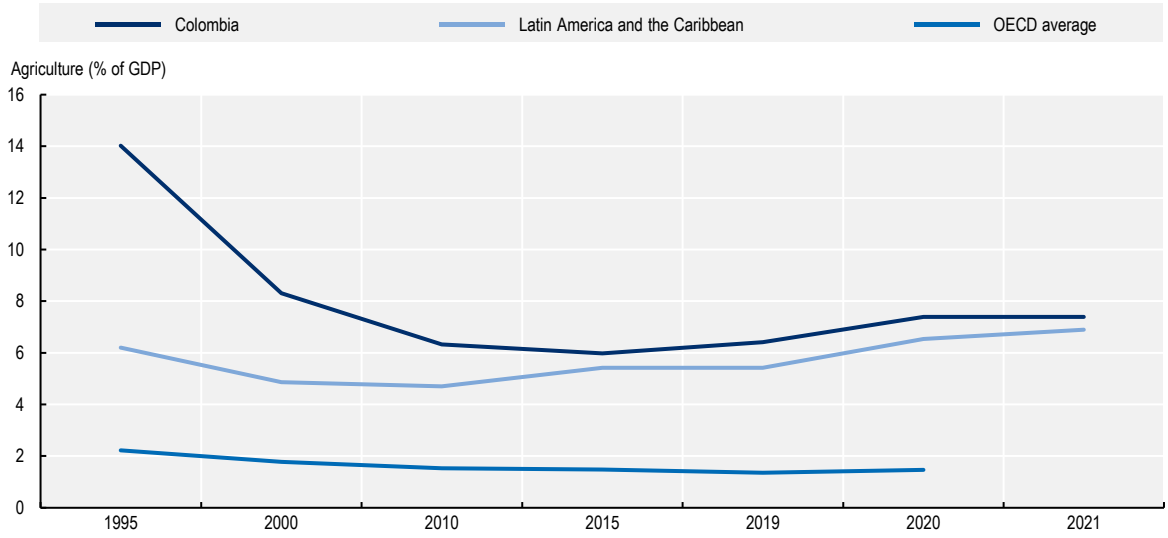
Economic patterns shaping Colombian rural regions

Colombia and its rural regions are diversifying the economic structure

Colombia's rural economy has evolved from an agricultural economy to a more diversified one. Until the beginning of the 1990s, agriculture was the main productive sector of Colombia and the economy as a whole was closely linked to its performance. Since the trade openness in the 1990s and the process of structural transformation, the participation of agriculture in the national economy has reduced significantly (from around 14% of the GDP in 1995 to 7.6% in 2020) (Figure 2.11).

This trend is associated with the development process of the country that has transitioned to a more urbanised territory, where the service economy has gained participation. For instance, during 2010-20, the sectors that grew the most in the economy were the public administration sector (+3.2 percentages points [pp]), as well as financial and insurance activities (+1.9 pp). All in all, this transition has indeed brought the participation of the agricultural sector closer to Latin American and closed the gap with levels of OECD countries.

Figure 2.11. Contribution of agriculture, forestry and fishing to the total economy in Colombia, OECD and Latin America average, 1995-2021



Note: Agriculture, forestry and fishing, value-added (% of GDP).
Source: World Bank (2021[18]), *Database*, https://data.worldbank.org/indicator/ (accessed on 2 November 2021).

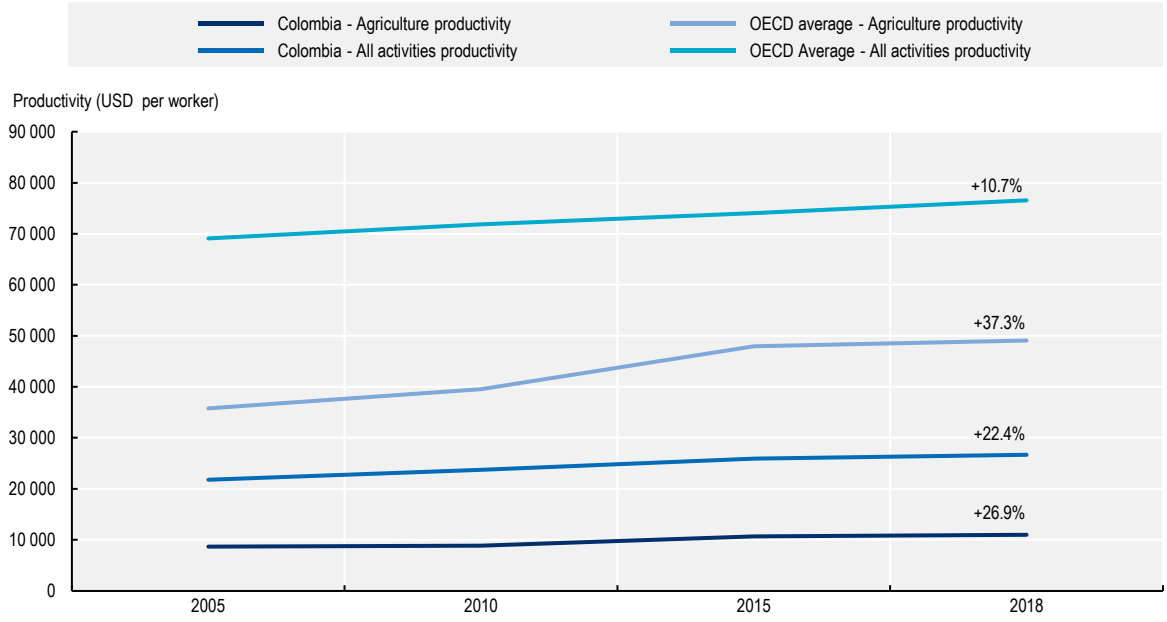
Greater labour productivity levels in other sectors have driven new economic activities to overtake agriculture and contribute to larger share of the national GDP. The labour productivity of Colombian agriculture has remained about 4 times below the average of agricultural sector in OECD during 2005-18 (Figure 2.12).

Part of the reason behind the low productivity in agriculture relates to the atomisation of landholdings in Colombia: 71% of all farms in Colombia are less than 5 hectares in size, with only 5% larger than 50 hectares. As Chapter 3 will develop, this situation poses a challenge to the scalability of the agricultural sector. Associativity among producers is an ongoing policy that leads to economies of scale to invest and manage machinery as well as to apply best-applied techniques, all aspects that improve competitiveness. Likewise, that chapter will highlight that rural information systems have room for improvement, as the suitability of crops and their management is greatly hampered by the lack of information available to experts and producers.

However, it is worth noting that agriculture has increased its productivity in recent years, accompanied by progress in agricultural extension in the country. Despite the productivity gap with other sectors, labour productivity of agriculture (sectorial GVA per worker) has increased (26.9%) from 2005 to 2018, above the labour productivity of the whole economy (22.4%) (Figure 2.12). Increasing efforts to improve enabling development factors in the rural regions (e.g. infrastructure, land formalisation, etc.) need to be maintained to boost agricultural output, improve food security and overall economic performance in the country.

Figure 2.12. Labour productivity change of agriculture, forestry and fishing of Colombia and OECD, 2005-18

GVA per worker

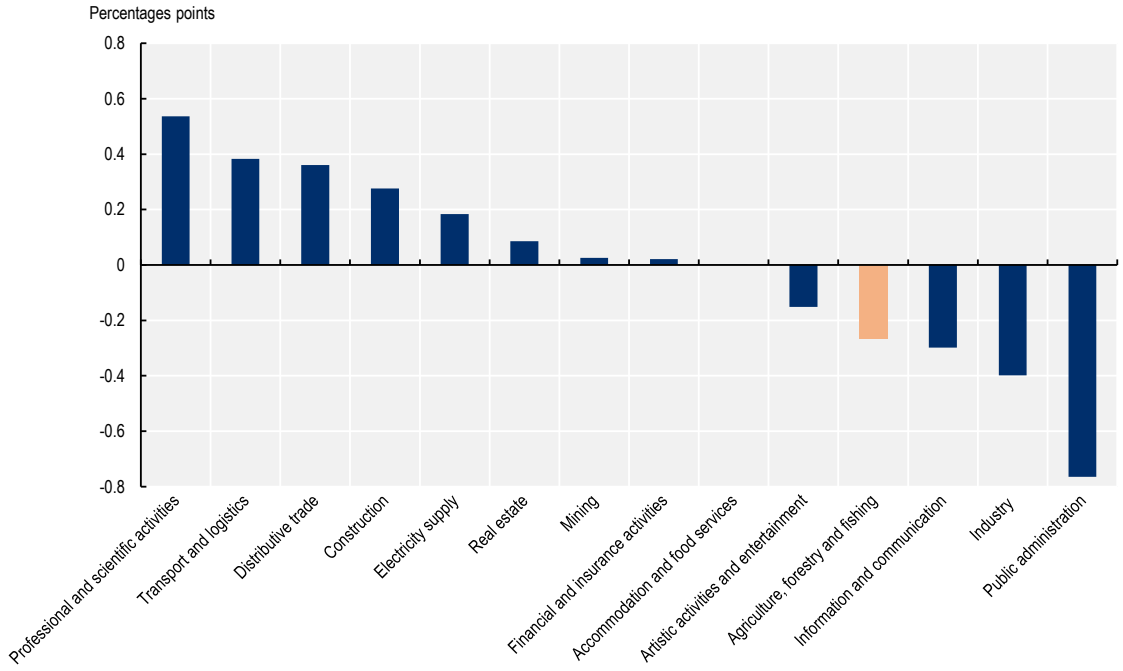


Note: GVA USD per worker, constant prices, constant purchasing power parity (PPP), base year 2015. The OECD average has been made by taking the most recent available values for the missing values, with a simple average.
Source: OECD (2021[30]), *OECD Regional Well-Being (database)*, https://www.oecdregionalwellbeing.org/ (accessed on 27 May 2019).

Agriculture continues to be the main employer for rural workers, but non-traditional sectors are increasingly becoming a relevant source of employment for the rural population. The national population employed in agriculture in Colombia dropped from 22% in 2000 to 16.6% in 2019. In rural economies, agriculture still employs most rural workers (60.3% in 2019), according to DANE's territorial classification (DANE, 2022[31]).Yet, the structural transformation in the country has led to a rise of the role of service sectors in rural employment. Between 2015 and 2021, the sectors that increased the most participation in rural employment were professional and scientific activities, transport and distributive trade (Figure 2.13).

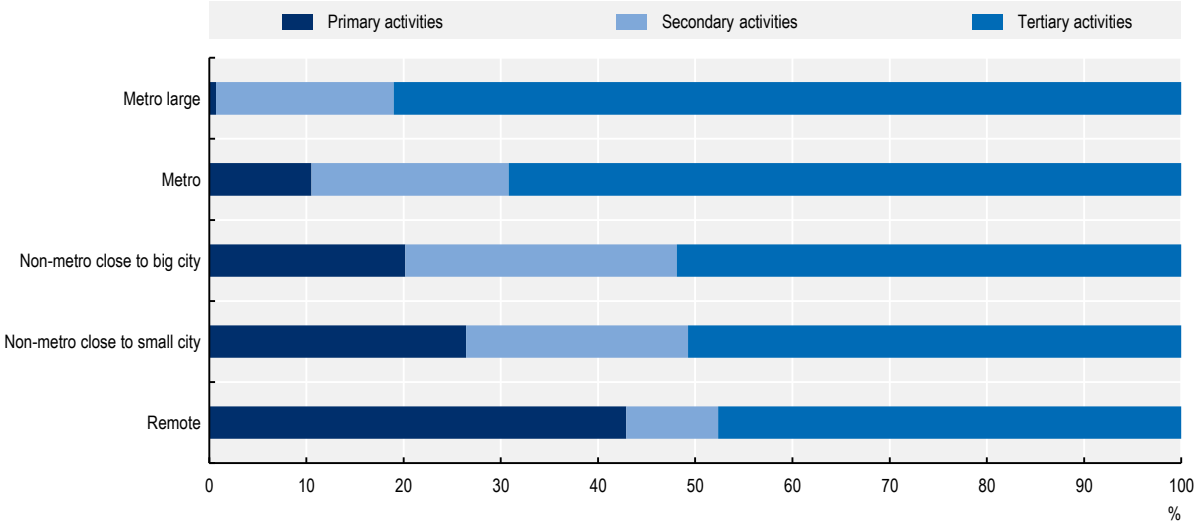
By 2019, tertiary activities[2] accounted for the largest value-added of Colombia's municipalities in rural regions (Figure 2.14). The more urbanised the municipality, the greater the presence of secondary activities, leaving the remote regions with a strong focus on primary activities, mainly agriculture, fishing, forestry and hunting. If the primary sector accounts for 20% of the value-added in rural regions close to a large city, the figure more than doubles for remote regions (41%).

Figure 2.13. Change in the share of rural employees by sector, 2015 vs. 2021



Note: This figure measures the change between 2015 and 2021 in the number of rural employees by sector as a proportion of total rural employees.
Source: DANE (2022[13]), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022).

Figure 2.14. Value-added by type of activity and regional typology in Colombia, 2019



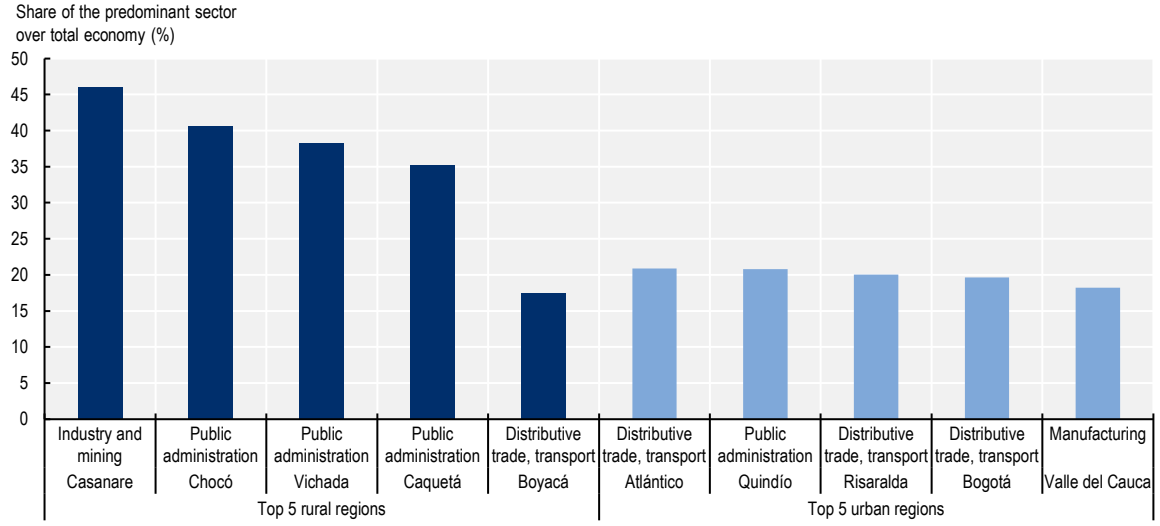
Note: By type of activity and OECD regional classification in Colombia. Calculated as the aggregate value at the municipal level in COP millions, based on 2015, current prices. Tertiary activities include: electricity, gas and water activities; commerce; repair of motor vehicles; transport; accommodation and food service; information and communication; financial and insurance; real estate activities; professional, scientific and technical activities; administrative and support service; public administration; education; health; arts and recreation; activities of individual households
Source: Own calculation based on (World Bank, 2021[18])

Economic diversity enhances the resilience of regions

OECD regions that have undertaken a catching-up process in their stages of economic development have been characterised by a high level of diversification and greater share of concentration in tradable activities (OECD, 2016[32]). Likewise, a diversified economic structure increases opportunities for innovation and economic resilience (Warf and Storper, 2000[33]). However, in Colombian rural regions, non-tradable sectors such as public administration and distributive trade are the main sources of employment (Figure 2.15).

Rural regions show higher levels of specialisation (employees in a region devoted to a single sector) than urban regions. For example, an average specialisation of 37.6% for rural regions, over 24.9% for urban regions in their more predominant sector (Annex Table 2.A.1). In the top 5 regions with a high degree of rurality, most of the employment is concentrated in public administration – e.g. Chocó (41% in 2020), Vichada (38.2%) and Caquetá (35.2%) – with the exception of those rural regions highly specialised in extractive industries- e.g. Casanare (46% in industry and mining) (Figure 2.15). In the top 5 regions with the highest share of urban population, the distributive trade sector stands out as the relevant sector in most regions- e.g. Atlántico (20.8%), Risaralda (20%), and Bogotá (19.6%). In the other high-urbanised regions, Quindío and Valle del Cauca, the predominant sectors are public administration (20.8%) and manufacturing (18.2%), respectively.

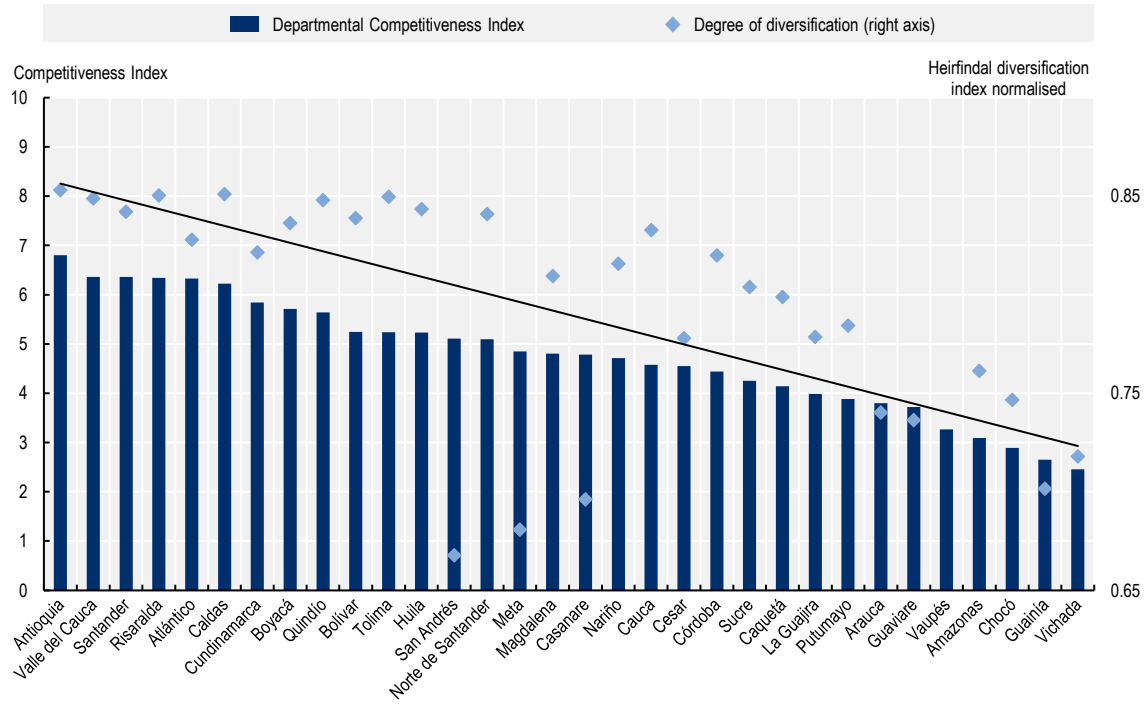
Figure 2.15. Top 5 rural-urban regions by economic specialisation in Colombia, 2021



Note: Darker shade for rural regions (>50% population living in rural areas) and lighted shade for urban regions (<50% of the population living in rural areas).
Source: Own elaboration with data from DANE (2022[13]), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022).

Diversification can also be associated to competiveness and resilience across regions. Figure 2.16 explores regional competitiveness though the Colombian Private Competitiveness Council's regional competitiveness index, which reveals that the most competitive regions – e.g. Antioquia, Valle del Cauca or Santander tend to record the highest levels of diversification, measured through the Herfindahl-Hirschman index (HHI).[3] This contrasts with the three regions with the lowest level of competitiveness: Vichada, Guainía, which also record among the lowest levels of diversification. While the association of diversification and competiveness does not hold evenly across regions (as in Casanare or Meta), it sheds lights on drivers and goals to boost regional growth.

Figure 2.16. Departmental Competitiveness Index and Herfindahl-Hirschman Index of diversification, 2020 and 2021



Note: The Herfindahl-Hirschman index is adapted to measure employment concentration across sectors. It is the sum of the squares of the employment shares of sectors over the regional economy. Higher values indicate greater concentration. As for the competitive index, 2020-21 has been developed by the Colombian Private Competitiveness Council (*Consejo Privado de Competitividad*) and consists of 4 analysis factors (enabling conditions, human capital, market efficiency and innovative ecosystem), 13 pillars (institutions, infrastructure and equipment, information and communication technology [ICT] adoption, environmental sustainability, healthcare, basic and secondary education, higher education and job training, business environment, labour market, financial system, market size, sophistication and diversification, and innovation and business dynamics) and 103 indicators.

Source: Own elaboration based on data from DANE (2022[13]), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022) and CPC (2021[34]), *Índice Departamental de Competitividad*, https://compite.com.co/indice-departamental-de-competitividad/#:~:text=En%20el%20m%C3%A1s%20reciente%20Reporte,pron%C3%B3sticos%20de%20todo%20el%20planeta (accessed on 12 March 2022).

More urban regions have greater diversity, allowing them to diversify their activities and generate sectoral interlinkages that allow for marginal increases in productivity. As productivity is one of the major bottlenecks in rural regions – as well as labour informality –, increasing diversification requires a series of important incentives and enablers, from infrastructure to innovation programmes among others as mentioned above.

Rural economies face high labour informality and low education attainment

Labour informality in Colombia is geographical more prevalent in rural economies (Figure 2.17). Colombia has long faced high levels of labour informality (63% in 2019), relative to the average of selected Latin American countries (45.9%), below Peru (78%) but above countries like Argentina, Brazil and Chile (OECD, 2022[17]). Informal employment is highly segmented by socio-economic characteristics. Most migrants, young workers, self-employed and part-time workers hold informal jobs. Labour informality in rural areas (85.6% in 2019) is almost 23% higher than the above the national average and this gap has slightly increased in the last decade (20% in 2008), although the national informality level has decreased,

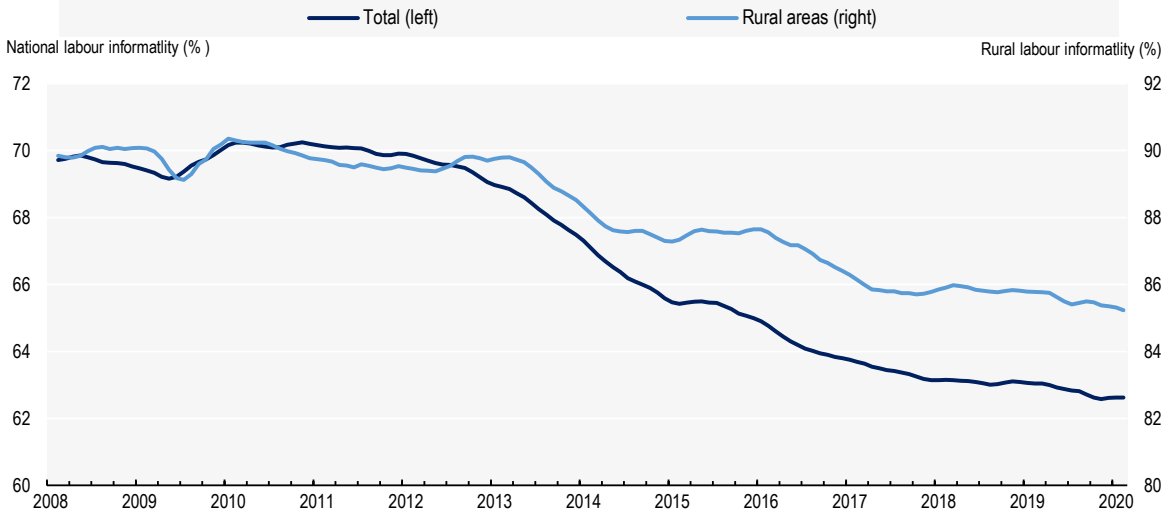
supported by increased development and contribution of the 2012 tax reform that reduced payroll taxes and employer's health contributions, facilitating the supply of formal employment (OECD, 2022[17]).

Various factors help explain such geographic concentration of labour informality. First, the relevance of the agricultural sector as the main source of employment for rural economies has been accompanied by the high use of informal contracts and a low level of insertion into the social security system. The largest share of agricultural workers is classified as self-employed, followed by private sector employees, day labourers (or farm workers) and unpaid family workers. In fact, 66% of those employed in agriculture are self-employed or day labourers and contribute less to pensions than in the urban sector (Otero-Cortés, 2019[35]). Also, the protection system is based on the individual's ability to pay and their employment status (based on contributions), it leaves little room for inhabitants of rural areas, who have lower and more unstable incomes and often lack formal contracts. This issue is still present as pension coverage is less than 15% across rural workers (Otero-Cortés, 2019[35]). Lastly, the historic internal conflict that produced forced displacement also led to informal labour arrangements and job uncertainties (Calderón-Mejía and Ibánez, 2016[36]; Fernández, Ibánez and Peña, 2014[37]).

Moreover, high levels of business informality also led to low-quality labour contracts. Around 76% of microenterprises were not registered with the tax administration and 89% were not registered in the chamber of commerce in 2020 (OECD, 2022[17]). This is highly correlated with low compliance for hiring formal workers and following sanitary standards, e.g. 88% of microenterprises do not contribute to healthcare or to pension and 95% do not contribute to professional risks (Eslava, Haltiwanger and Pinzón, 2019[38]).

As identified in previous studies by the OECD, high mandatory social contributions and costly and complex business regulations hamper the formalisation of firms and jobs in Colombia. Some of the OECD recommendations to reduce informality include establishing a comprehensive strategy to foster formalisation, including lower non-wage costs, stronger enforcement and improvements in tax administration and a reduced tax burden on formal labour income, by gradually shifting the financing burden of social protection towards general taxation (OECD, 2022[17]).

Figure 2.17. Informality by type of region in Colombia, 2008-20

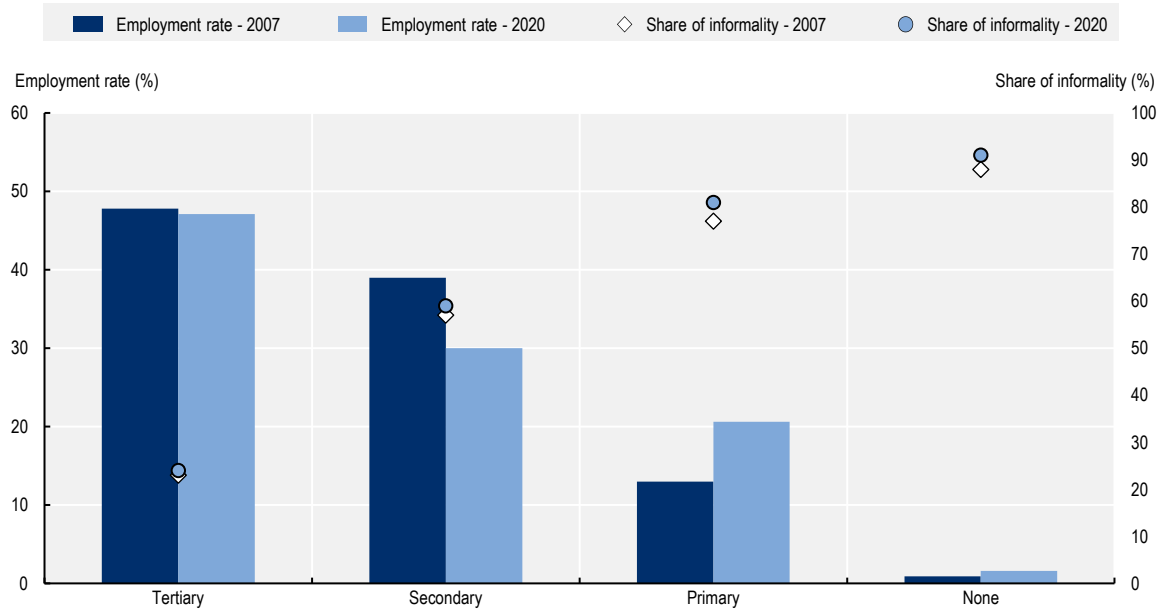


Note: Rural areas according to DANE's classification. Twelve-month averages. Informality is defined as the percentage of workers in employment not contributing to the pension system. The statistical definition is different from the one followed by DANE. Months after the COVID-19 pandemic no included as some questions were not asked in household surveys

Source: OECD (2022[17]), *OECD Economic Surveys: Colombia 2022*, https://doi.org/10.1787/04bf9377-en OECD (2022[17]), *OECD Economic Surveys: Colombia 2022*, https://doi.org/10.1787/04bf9377-en

The formal employment rate is highly correlated with the educational attainment of workers (Figure 2.18). The highest employment rates are found among workers with tertiary education (47%). Moreover, the degree of informality is also lower at this level of education, accounting for only 24% as opposed to 59% for those with secondary education, 81% for primary education and 91% for those with no education. Providing training to adults and access to higher education also proves to be essential to enable formalising older workers who would find it difficult to re-enter the education system.

Figure 2.18. Employment rate and informality rate by educational attainment in Colombia, 2021



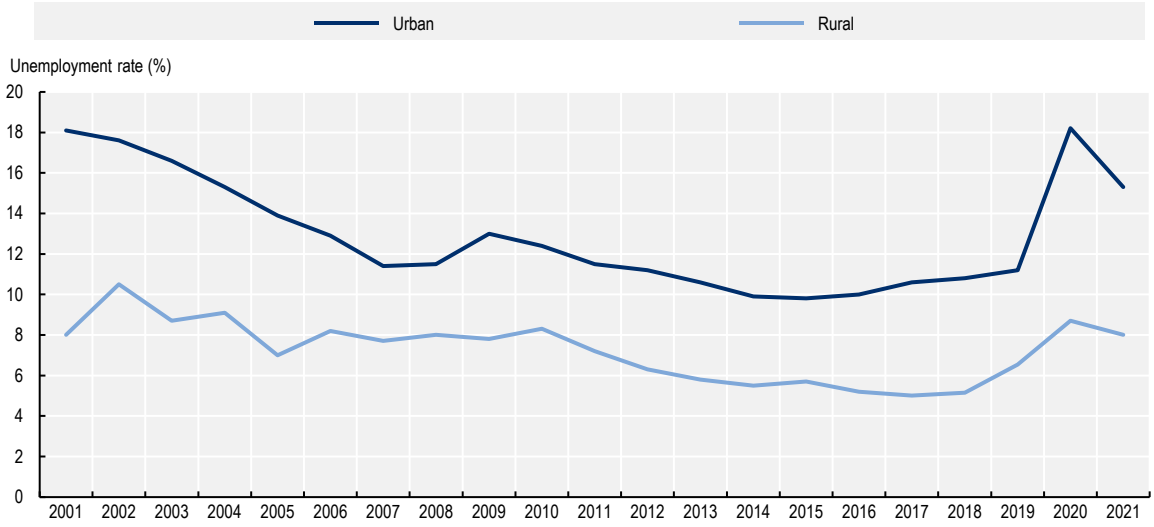
Source: Own elaboration with data taken from DANE (2022[39]), *Encuesta Nacional de Calidad de Vida (ECV) 2021*, https://www.dane.gov.co/files/investigaciones/condiciones_vida/calidad_vida/2020/Boletin_Tecnico_ECV_2020.pdf (accessed on 26 October 2021).

Unemployment in rural areas is lower than in urban, despite labour informality

Although high levels of informality could affect statistics in comparing unemployment rates, the absorption of employment in rural areas is relatively better than in urban (Figure 2.19). In 2021, the unemployment rate in rural areas (8.1%) was lower than in urban areas (14.8%) and the national average (13.4%). The trend over the last 2 decades has been one of declining unemployment; accompanying the good performance of the economy at the national level, from 15.1% in 2001 to a level of 10.5% in 2019, before the COVID-19 pandemic (2022 would also reach a level below 11%) (DANE, 2022[31]).

Particularly positive has been the employment performance in rural areas, which has gone reached a level before the pandemic of 6.5% (2019). The COVID-19 pandemic also revealed the role of rural economies to maintain levels of employment relative to urban areas, which was associated with the relevance of primary sectors as essential activities that cushion economic shocks. Primary economic sectors, such agriculture, helped cushion the impact of the external shock and proved to be essential activities composed of indispensable workers.

Figure 2.19. Unemployment rate by typology in Colombia, 2001-21



Note: Based on DANE's territorial classification at the municipal level (urban centres vs. dispersed rural and populated centres).
Source: DANE (2022[13]), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022).

Demographic patterns in Colombian rural regions

Colombia's population continues to grow regardless of region, with particular strength in several rural areas

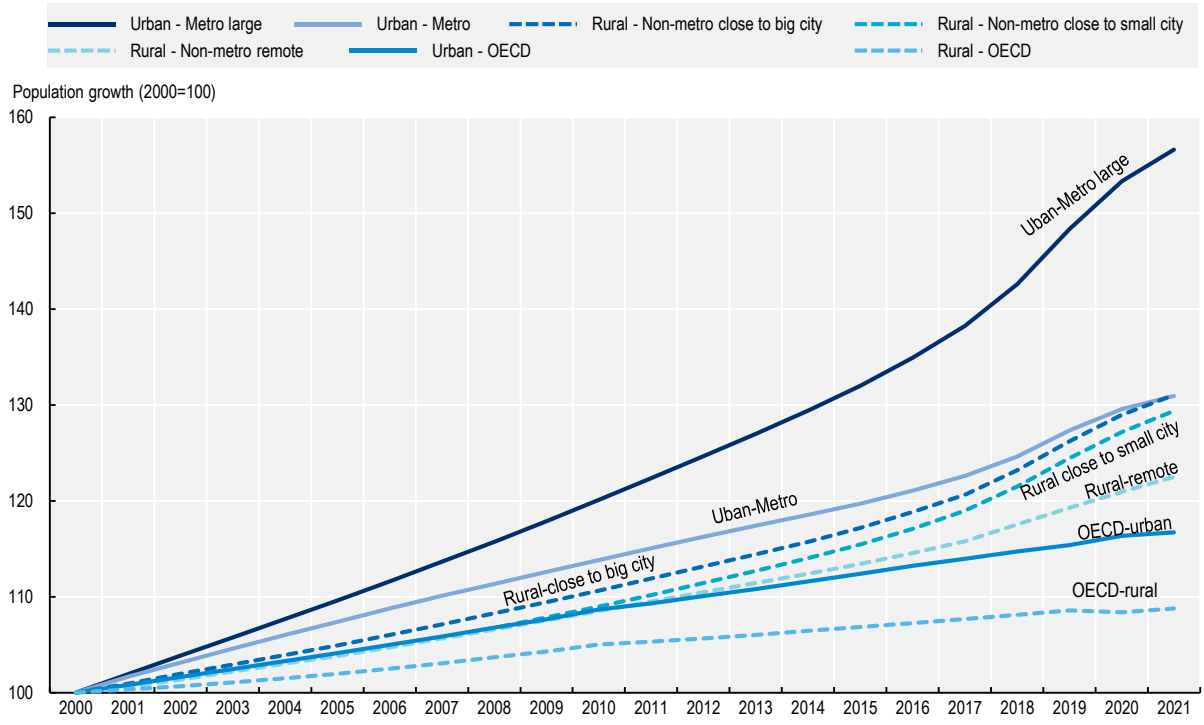
Urban regions have a larger population size, yet the majority of the territory is rural. Half of the regions are rural and the other half urban (16 of 32 excluding Bogotá Capital District, see Figure 2.4), although the rural regions are home to 42.1% of the country's total population. Moreover, when looking at the administrative areas, 88% of municipalities are classified as rural, with an important share of municipalities in remote rural regions (51%).

Most urban regions, especially the capital Bogotá, have populations ranging from 7.8 million inhabitants to 562 000 in Quindío. On the rural side, Boyacá has a population of 1.2 million inhabitants and Vichada has 114 000 inhabitants. The same fortune has been experienced by the rural regions, with Vichada leading the way in population growth (128%), followed by Casanare (121%). The urban regions concentrate the highest population rates but, due to their size, their relative growth is more contained, although all the regions have experienced positive growth in the last decade.

This recent positive trend is coupled with a regional displacement within the territory as a result of the armed conflict: 774 494 households have been expelled from 1 115 municipalities and departmental districts, which means that 7.3% of the Colombian population lives or has lived in a condition of forced displacement (RUPD, 2017[40]). All in all, this phenomenon has resulted in large internal migration flows, especially from rural to urban areas of all sizes. For instance, the most affected were Antioquia with more than 100 000 displaced persons, followed by Chocó, Magdalena and Bolívar with more than 40 000. The most critical years of mass displacement were 2000, 2001 and 2002, coinciding with the increase in confrontations between guerrillas, the state and paramilitaries. This situation has improved significantly with the peace treaty, having reduced by 90% the number of displaced persons in recent years.

Colombia's population has grown in all regions, especially in large metros, but aggregated increases in the rest of the regions show a rather balanced demographic increase throughout the territory (Figure 2.20). Large metro regions have grown by 57% since 2000, above the 22% of remote rural regions. For small and medium metro regions, the values are close (39% both in 2021), with urban metros maintaining slightly higher growth until the pandemic, having equalised after the COVID-19 pandemic. Rural regions close to a small city have maintained a constant gap from rural regions close to a large city over the same period (31% and 29%).

Figure 2.20. Population growth by regional typology in Colombia and OECD, 2000-21



Source: Data from OECD (2022[11]), *Regional Economy (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021).

StatLink https://stat.link/o7i5d8

In recent years there has been an important international migratory flow in Colombia, especially from Venezuela. In fact, according to figures from the Interagency Group on Mixed Migration Flows, of the 1.7 million Venezuelans who have immigrated to Colombia, around 760 000 have regular status. Of these, around 95% have the intention of staying in Colombia. In particular, Bogotá (393 716) and Antioquia (264 148) are the departments that host the most Venezuelans (Ministry of External Relations, 2021[41])

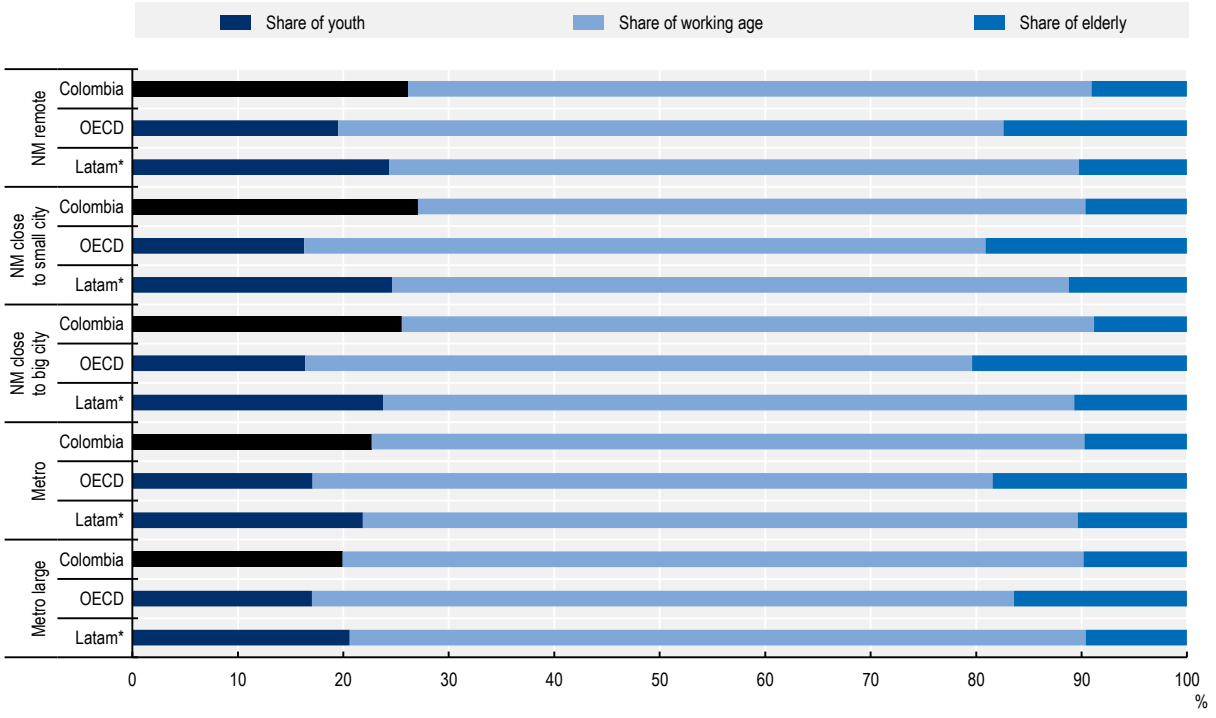
The Colombian population is young, particularly in rural areas

Contrary to the trend of ageing populations across OECD countries, Colombian rural regions benefit from a high share of young people (0-14 years old) (26% in 2021), far above the OECD average (17%) and other OECD Latin American countries, like Chile (20%) (Figure 2.21). This demographic structure is a bonus for rural regions as young people are a source of innovation and vitality for the community, and an important asset for future economic growth and regional attractiveness. Across rural regions, regions close

to small cities have the highest share of young people in Colombia (27%), above the average for the same type of regions in Latin America (25%) and the OECD (16%).

Similarly, Colombian rural regions have a higher share of working-age population (15-64 years old) (65% in 2021) than rural regions in comparable Latin American countries (66%) and OECD countries (64%). Nevertheless, within Colombia, urban regions have a higher share of working-age population (69%), particularly large metropolitan regions.

Figure 2.21. Population structure of Colombia and OECD, 2021



Note: Data for certain OECD countries correspond to 2019 and 2020.
* The Latin America (Latam) average is made up of data from Chile and Mexico as unique OECD member countries from Latin American and, thus, using the correspondent OECD territorial typology.
Source Data from OECD (2022[11]), *Regional Economy (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021).

StatLink https://stat.link/dmnlhi

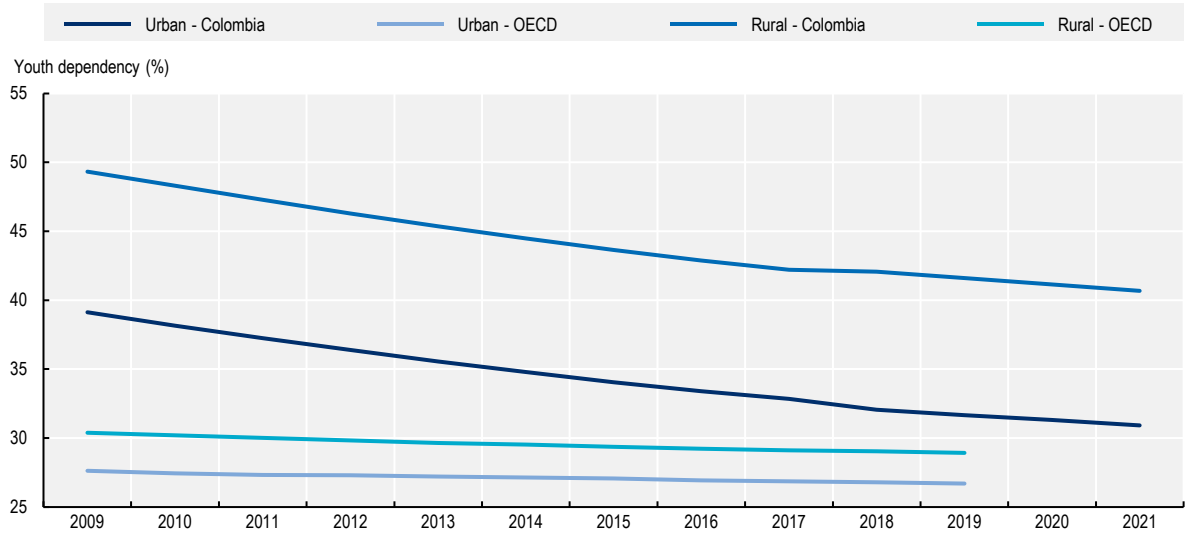
Yet, the share of young people in rural places depicts a decreasing trend

Despite the demographic bonus of Colombia's rural regions, the share of young people is shrinking in line with international trends (Figure 2.22). Between 2009 and 2021, the share of young people over the working-age population (youth dependency ratio) in Colombia's rural regions decreased from 49% to 41%, a more drastic drop than the OECD average (from 30% to 29% in 2019). Likewise, this ratio in Colombian urban regions felt from 39% in 2009 to 31% in 2021.

Nevertheless, the share of elderly relative to the working-age population in Colombian rural regions (14% in 2020) has remained about half of the OECD average (29%) and has increased below the trend of OECD and the Colombian urban regions (Figure 2.23). Between 2009 and 2020, this share of the elderly population in Colombian rural regions increased by 2.5 pp, below the growth in Colombian urban regions

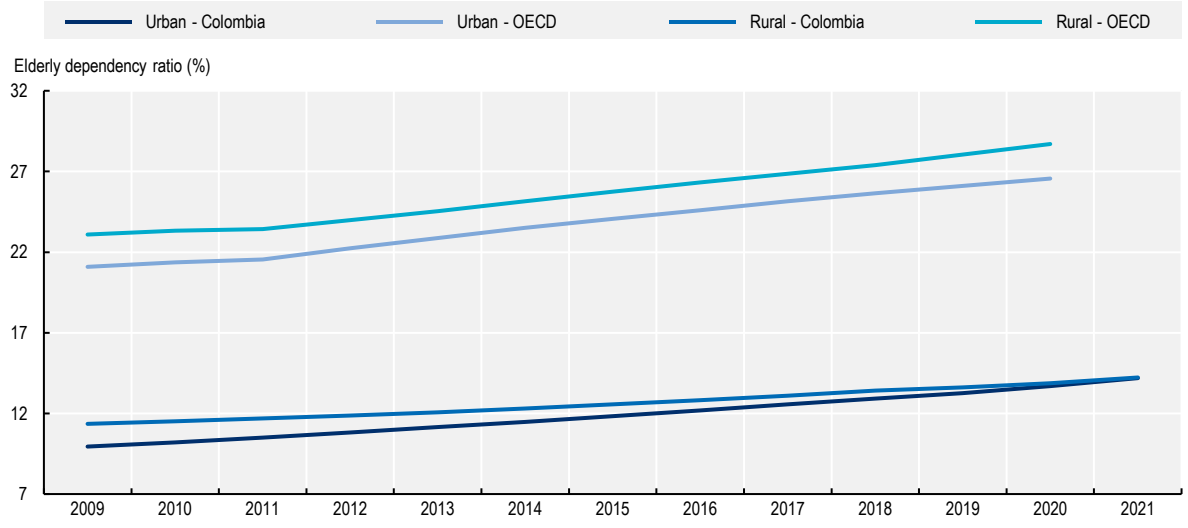
(3.7 pp) and OECD rural regions (5.6 pp). The low elderly dependency ratio benefits from a still-growing working-age population, which can offer, with the right skills, a dynamic labour market to unlock new business opportunities.

Figure 2.22. Youth dependency ratio in Colombia and OECD average in 2009-21



Note: The youth dependency ratio is the population ages 0-15 divided by the population ages 16-64.
Source: OECD (2022[11]), *Regional Economy (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021).

Figure 2.23. Elderly dependency ratio in Colombia and OECD average, 2011-21



Note: The elderly dependency ratio is the population aged 65 and over divided by the population aged 16-64.
Source: Data from OECD (2022[11]), *Regional Economy (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021).

As in most OECD countries, there is an increasing ageing trend that calls for short-term actions to capitalise on demographic bonuses in Colombian rural regions. To this end, OECD countries are increasing their focus on the empowerment of young people and their retention in rural economies thorough better

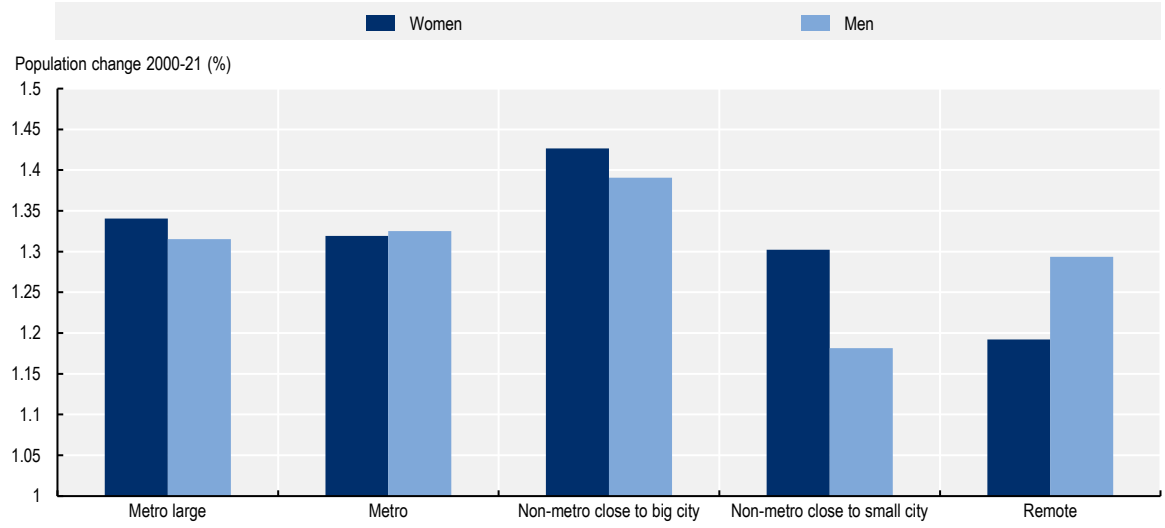
matching of education opportunities and labour offers (Chapter 4) or support to social innovation and entrepreneurship (Chapter 3).

Women's inclusion leads to improved social cohesion and economic prosperity

Women represent 50.04% of the population living in rural regions of the country (48.2% according to DANE's classification). While Colombia has a slightly greater proportion of women than men (95 men per 100 women), this proportion is smaller in rural (99) than in urban regions (92). Large metropolitan cities concentrate the greatest number of women (approximately 9.7 million), followed by small- and medium-sized cities (5.7 million). Instead, in rural areas, remote rural regions have the greatest number of women (4.2 million), ahead of rural regions close to small cities (3.6 million) and those close to large cities (2.8 million).

However, while young women outnumber young men in all types of Colombia regions when looking at working age, remote rural regions are the only type of regions that experience a lower share of women. This shapes population growth, with remote rural regions experiencing the highest growth of the number of men relative to women across all types of regions (Figure 2.24). This phenomenon can be associated with lower opportunities for formal work in rural economies.

Figure 2.24. Gender population change by type of region in Colombia, 2000-21

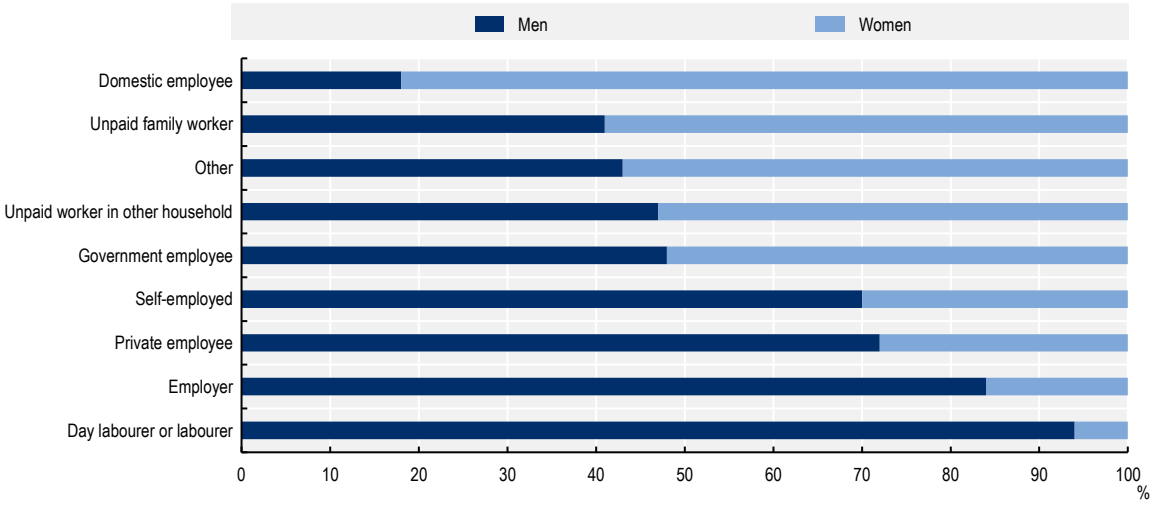


Source: Own elaboration with data from DANE (2022[13]), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022).

Women's role in the rural and family economy and, thus, their social and economic conditions, have historically been invisibilised. Partly because their role in the economy has been mainly oriented towards tasks traditionally considered to be of low productivity (e.g. care roles), but indispensable for the good functioning of rural communities (Figure 2.25). In rural Colombia, only 29.2% of the employed population is female by 2020, although they represent 46.8% of the rural population in working age (DANE, 2021[42]). Consequently, unemployment rate of rural women (16.2% in 2020) is about three times higher than men (5.7%), and within the working-age population outside the labour force in rural areas (neither working nor looking for job), women represented twice the level of men (67.9% vs 32.9%). This contrasts with the higher educational attainment of rural women, where 7.9% have higher or postgraduate education, and 21.4% have secondary education, as opposed to 5.6% and 18.3% respectively for rural men (DANE, 2021[42])

All in all, women account for 82% of work in the home, as well as 59% of unpaid domestic work, compared to only 18% and 41% for men respectively. This imbalance in favour of men is also evident in other roles that provide better income in the labour market - e.g. private employees (72% men vs. 28% women) and employers (84% vs. 16%). Only the public sector in the rural context has more women (52%) than men (48%) (DANE, 2022[39]).

Figure 2.25. Occupational position by gender in rural areas in Colombia, 2019



Note: Rural areas have been selected using the DANE territorial classification (DANE, 2022[13]).
Source: Own elaboration with data taken from DANE (2022[39]), *Encuesta Nacional de Calidad de Vida (ECV) 2021*, https://www.dane.gov.co/files/investigaciones/condiciones_vida/calidad_vida/2020/Boletin_Tecnico_ECV_2020.pdf (accessed on 26 October 2021).

This gender specialisation has implications in poverty rates, with women more exposed to poverty as they are more engaged in lower-paid economic activities. By 2020, 46.9% of households headed by women were in a situation of monetary poverty, above the 41.5% of households headed by men (DANE, 2021[42]). Against this backdrop, focusing rural policies, whether productive or social, on the needs of rural women, with recognition of their care roles, would have an important multiplier effect in reducing rural poverty and labour informality, unlocking thus new business opportunities in these economies.

Well-being enablers

Snapshot of quality of life in Colombia

Quality of life is a cornerstone to build prosperous communities, improve social cohesion and regional attractiveness for people and businesses. Due to the lack of data available to compare well-being internationally at the provincial level (TL3 regions), the analysis presented in this section describes well-being at the department level (TL2 regions) by adopting the OECD Regional Well-Being framework (Box 2.4). The OECD regional well-being analysis provides a tool to assess the region's strengths and weaknesses, monitor trends and compare their results with those of other regions, nationally and internationally (Box 2.4). As the available data on well-being come from various sources (e.g. DANE, OECD regional database), each using a different territorial typology, this section uses the typologies corresponding to the source data, mentioning when it differs from the OECD taxonomy.

Box 2.4. OECD Regional Well-being indicators

Building comparable well-being indicators at a regional scale

The OECD framework for measuring regional well-being builds on the OECD Better Life Initiative at the national level. It goes further to measure well-being in regions with the idea that well-being data are more meaningful if measured where people experience it. Besides place-based outcomes, the framework also focuses on individuals, since both dimensions influence people's well-being and future opportunities.

In line with national well-being indicators, regional well-being indicators concentrate on informing about people's lives rather than on means (inputs) or ends (outputs). In this way, policies are directed to well-being features that can be improved by policies. Regional well-being indicators also serve as a tool to evaluate how well-being differs across regions and groups of people. Regional well-being indicators are multidimensional and include both material dimensions and quality-of-life aspects. They also recognise the role of citizenship, institutions and governance in shaping policies and outcomes. Although well-being dimensions are measured separately, the regional well-being framework aims to allow for comparisons and interactions across multiple dimensions to account for complementarities and trade-offs faced by policy makers. At the same time, the comparison of regional well-being indicators over time allows comparing dynamics of well-being over time, as well as the sustainability and resilience of regional development.

Regional well-being in Colombia is measured along 8 well-being dimensions to reflect the quality on environment, social networks, life satisfaction, civic engagement, availability of jobs, health, education and safety (Figure 2.26). The figure below shows the details of the indicator used for each dimension.

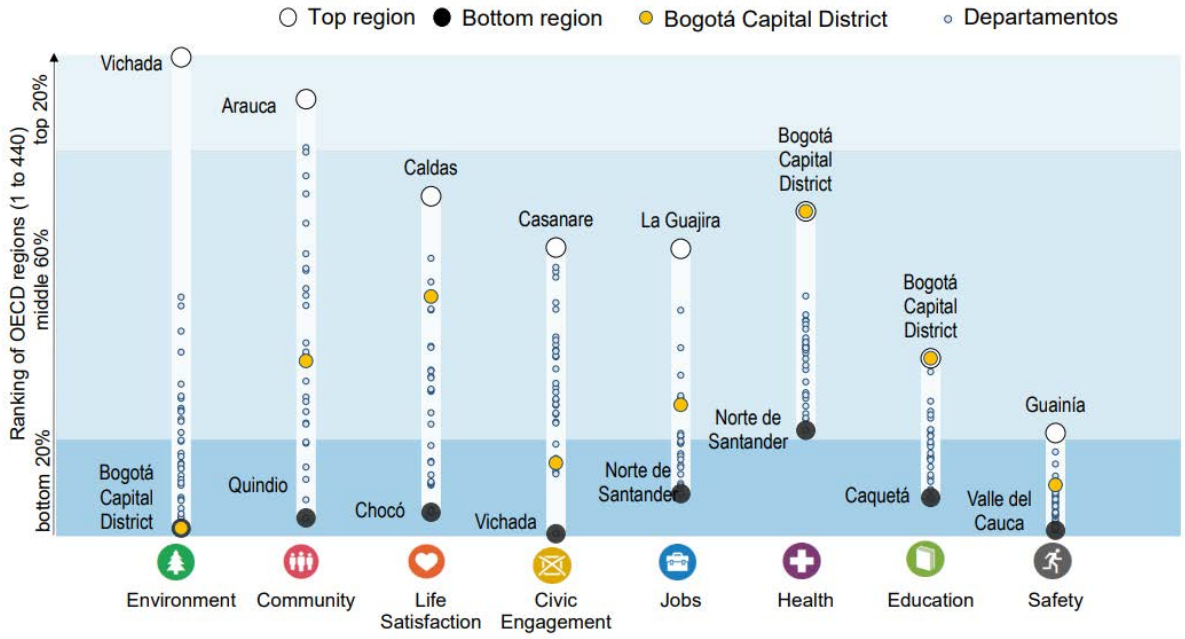
Figure 2.26. Indicators by well-being dimension, Colombia

	Country Average	OECD Top 20% regions	Colombian regions	
			Top 20%	Bottom 20%
Environment				
Level of air pollution in PM 2.5 (µg/m³), 2019	22.5	7.0	14.2	29.7
Community				
Perceived social network support (%), 2014-18	88.6	94.1	92.9	83.1
Life Satisfaction				
Life satisfaction (scale from 0 to 10), 2014-18	6.2	7.3	6.7	5.5
Civic engagement				
Voters in last national election (%), 2019 or latest year	60.3	84.2	69.1	53.3
Jobs				
Employment rate 15 to 64 years old (%), 2019	64.4	76.0	71.8	51.5
Unemployment rate 15 to 64 years old (%), 2019	10.0	3.3	6.9	12.3
Health				
Life Expectancy at birth (years), 2018	75.6	82.6	78.5	72.9
Age adjusted mortality rate (per 1 000 people), 2018	6.1	6.6	5.2	6.9
Education				
Population with at least upper secondary education, 25-64 year-olds (%), 2019	54.5	90.3	69.2	42.6
Safety				
Homicide Rate (per 100 000 people), 2016-18	26.6	0.7	15.0	47.5

Source: OECD (n.d.[43]), *OECD Regional Well-Being (database)*, Accessed on June 2022 www.oecdregionalwellbeing.org.

Regional well-being is measured through different areas, economic, environmental and social, which for Colombia are measured through eight dimensions (Figure 2.27). Out of these, some Colombian rural regions on two dimensions: environmental quality (on air pollution), where Vichada ranks at the top 20% of OECD regions, and community (social network support), where Arauca registers the highest performance. However, regional differences are stark in almost all well-being dimensions. In Environment, despite the good performance of Vichada, most regions are in the bottom 20% of OECD regions. This is similar in dimensions such as jobs and education. Yet, the high level of labour informality can distort the "jobs" dimension (employment and unemployment), and the high ranking of Guajira must be taken with caution. In terms of safety, all Colombian regions are part of the bottom OECD 25% regions (Figure 2.27).

Figure 2.27. Well-being regional disparity, large region (TL2)



Note: Relative ranking of the regions with the best and worst outcomes in the 8 well-being dimensions, with respect to all 440 OECD regions. The 8 dimensions are ordered by decreasing regional disparities in the country. Each well-being dimension is calculated based on the indicators and time dates depicted in Figure 2.26.
Source: OECD (n.d.[43]), *OECD Regional Well-Being (database)*, Accessed on June 2022 www.oecdregionalwellbeing.org.

Departments in Colombia, on average, experience a relatively good performance in the following dimensions:

- **Life satisfaction**. Life satisfaction in Colombia is 6.2 on a scale between 0 and 10, broadly in line with the OECD average of 6.5. This indicator captures a reflective assessment of how things are going in one's life and allows one to evaluate which life circumstances and conditions are important for subjective well-being. Caldas ranks as the region with the highest level of life satisfaction, close to the top 20% of the OECD, which scores 7.3.
- **Community perception of social network support**. According to 2018 Gallup's survey, the average of the Colombian regions registers a level of 88.6 percent, a relatively high figure given that the threshold of top 20% of the OECD is around 94 percent. As for the rural regions like Arauca, it manages to place itself among the top OECD regions with a greater perception of social networks. This dimension is relevant as it explains the nature of social interactions whose scope also has wider implication, including support for social innovation and resilience capacity.

In contrast, the four well-being dimensions where Colombian regions a markedly lower performance than OECD regions are:

- **Safety**. Colombia concentrates almost all its regions in the bottom 20% of the OECD in terms of safety. In fact, the country average is 26.6, 10 times higher than the OECD average (2.6). Regions such as Valle del Cauca (47.5) are among the bottom 20% of the country. This is very important for the well-being of citizens, as it is part of the more structural perception of the daily living conditions. Indeed, the biggest impact of crime on people's well-being appears to be through the feeling of vulnerability that it causes.
- **Civic engagement**. The voter turnout in Colombia (53% in 2019) is far below the OECD average (69%). This is particularly relevant for well-being because participation in society, for example through the expression of political voice, is essential for individual well-being. Political voice is not only part of the basic freedoms and rights of human beings, but also enhances the accountability and effectiveness of public policy. Moreover, public trust in government is low (37% of the population in 2019) relative to OECD countries (52%) and has declined over time (from 51% of the population reporting trust in 2017) (OECD, 2022[17]). Low trust in public institutions also deter whistle-blowers from reporting corruption cases. In fact, 58% of Colombians consider it unlikely that complaints generate any consequences, while 78% indicate that they would suffer retaliation if they report (Pring and Vrushi, 2019[44]).
- **Jobs**. Employment and unemployment show structural weaknesses in the country's labour market, a fundamental building block on which to build a strong national economy. The average regional unemployment rate of Colombia regions (15.8% in 2020 last data available for international comparisons) is more than twice the OECD average (7.3%) (OECD, 2022[11]). The employment rate in Colombia is 58%, while the OECD average is 66%.
- **Environment**. The environment in the regions of Colombia reaches very different values depending on the region, revealing a very high inequality in environmental outcomes. The average air pollution across Colombian regions (14.6 µg/m³ experienced by the population in 2019) is above the OECD average (12.0) and above European countries in the OECD (10.8). Yet, air pollution in Colombian regions is below the average across Latin-American countries in the OECD (Chile, Costa Rica, Mexico) (20.3). The average air pollution of Colombian regions classified with 100% rural degree (Figure 2.4) (14) is similar to the national average, which reveals that some regions (e.g. Arauca, Choco) face similar air pollution levels in their villages, which might be associated to methods to produce electricity (fossil fuels) or extractive activities that generate negative effects.

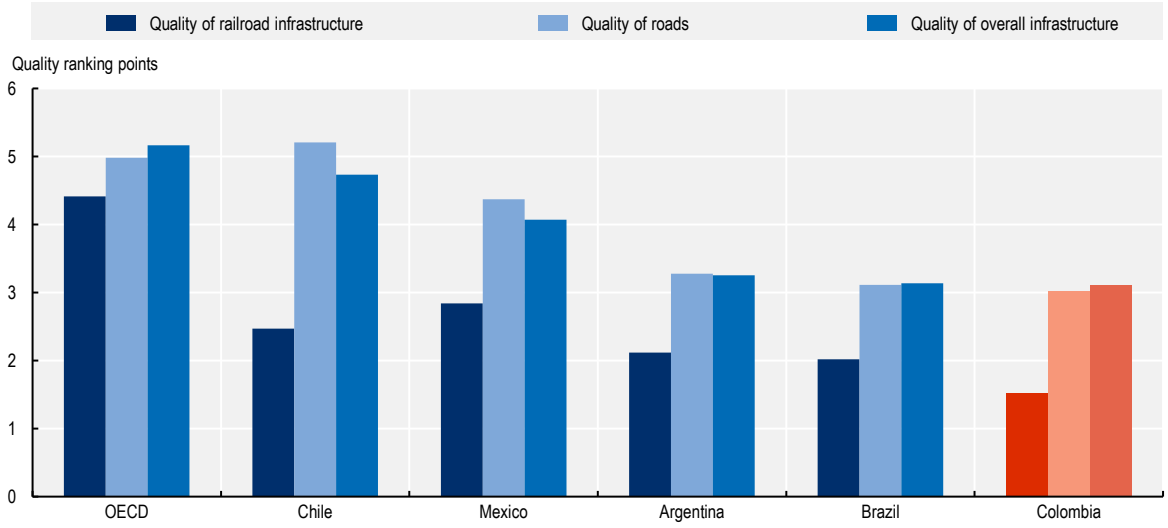
Civil infrastructure has proved crucial for Colombia and still has significant room for improvement

Road infrastructure

The Colombian road network spans 206 500 km^2, of which 8% corresponds to the National Primary Network, 22% to the departmental network and 70% to the municipal network (also known as tertiary roads). Overall, Colombia ranks 102nd in road quality among 142 countries according to the World Economic Forum in 2019, resulting in high costs of transporting goods and people across the country and to ports (The Global Economy, 2020[45]).

Colombia ranks very similarly in quality of roads (3.0) and quality of overall infrastructure (3.1) to Brazil (3.2 and 3.1 respectively) and Argentina (3.3 and 3.2), but far behind other Latin American countries including Chile (5.2 and 4.7) and Mexico (4.4 and 4.1) (Figure 2.28). Rail infrastructure in Colombia is scarce and its quality ranks below the former four Latin American countries and the OECD.

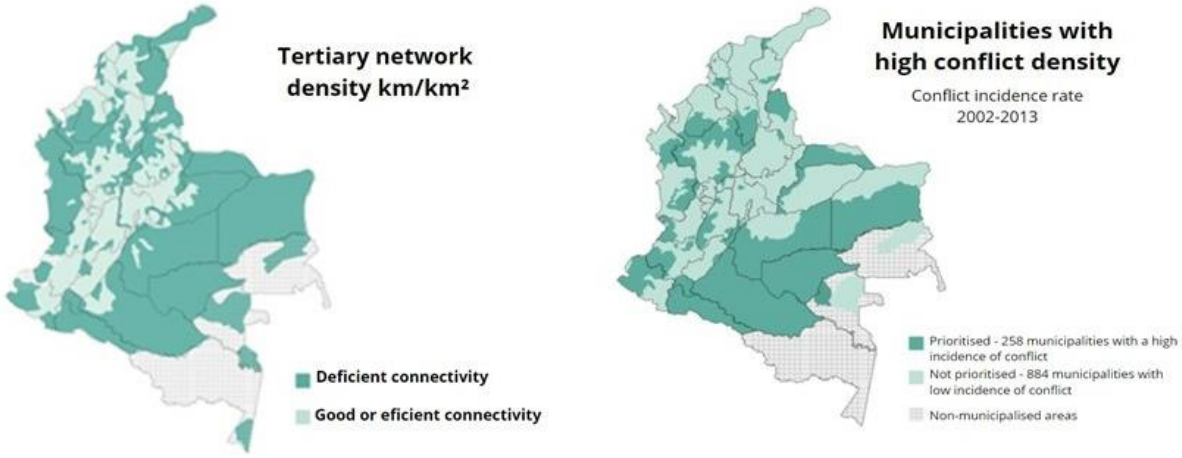
Figure 2.28. Quality of infrastructure for Colombia and selected Latin American countries, 2017



Note: Values are normalised so that on a scale of 1 to 7, the higher the value, the higher the level of infrastructure quality.
Source: WEF (2019[46]), *Global Competitiveness Report 2017-2018*, http://reports.weforum.org/global-competitiveness-index-2017-2018/?doing_wp_cron=1649002273.3697540760040283203125 (accessed on 12 December 2021).

The degree of isolation of Colombia's territory has had an impact on the economic and social development of the regions. There is a high correlation pattern between the areas with the highest levels of violence, poverty and illicit crops in the country and those with developed road infrastructure (Figure 2.29). An adequate transport network would improve the accessibility of vulnerable communities to alternative sources of income and government services, including healthcare, education, security and justice.

Figure 2.29. Tertiary road density and prioritised municipalities



Source: Murillo, C. (2017[47]), "Desafios para el desarrollo de la red vial terciaria en el posconflicto", https://doi.org/10.16924/revinge.45.5.

Given the geographic challenges in Colombia and the historic lag in connectivity in some rural regions, advancing other types of transport infrastructure is relevant for rural development. As explained in Chapter 4, the lack of railways and other alternative modes in Colombia led to congestion of road traffic by both passenger and freight transport.

In terms of the railway infrastructure, 49% of Colombia's current railway network is inactive and 5% of the private network is dedicated to coal transport. the national government presented the Railway Master Plan in 2020, which is a strategy that seeks to reactivate the country's railways and boost the economy after the pandemic caused by COVID-19 (DNP, 2020[48]). If the plan is successfully implemented, it is estimated to reduce costs by 26% by 2030, shorten logistics chain times, strengthen the attraction of foreign investment, strengthen services for transporting goods and raw materials, and increase the country's competitiveness.

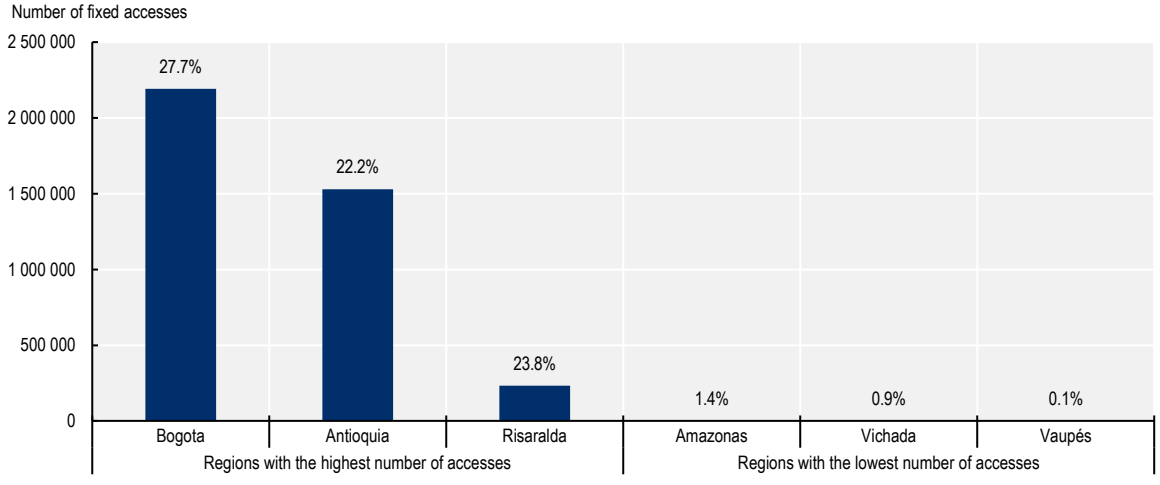
In fluvial transport, out of the 24 725 km of navigable rivers in Colombia, 74% (18 225 km) allow permanent year-round minor navigation. River transport is a passenger and freight transport alternative with great potential for use in Colombia, especially in riverine areas with a need to transport people, goods and supplies in regions that are difficult to access.

Rural communities significantly lag in broadband connectivity and speeds

Given the geographic difficulties to connect rural communities with transport infrastructure, broadband access can be an important driver of rural development in Colombia. Yet, only 28.8% of households located in rural areas (according to DANE's classification) have access to the Internet (fixed and/or mobile), below the 70% of households that have the same service in urban areas (DANE, 2022[39]). This gap is more striking when comparing accessibility to a fixed broadband connection, in which only 12.7% of rural households have this type of connection, below the 57.6% of urban households. As mentioned in Chapter 4 home connections are indispensable to drive connectivity in a sustainable way as they allow quality access to virtual services and allow the use of data-intensive activities, such as cloud computing, and demanding applications across sectors, for example industry automation or monitoring.

At the regional level, there is still a significant gap between remote rural regions and regions in the centre of the country. For instance, Amazonas has 2%, Guainía 3% and Vaupés 0.1% of its population covered by fixed broadband connections, far below the share of population covered in Bogotá (27%) of its or Antioquia (21%) (MinTIC, 2022[49]). Especially of concern is that seven of the eight regions with the lowest share of population covered by fixed broadband access have seen a decrease in this access in the last year (MinTIC, 2022[50]).

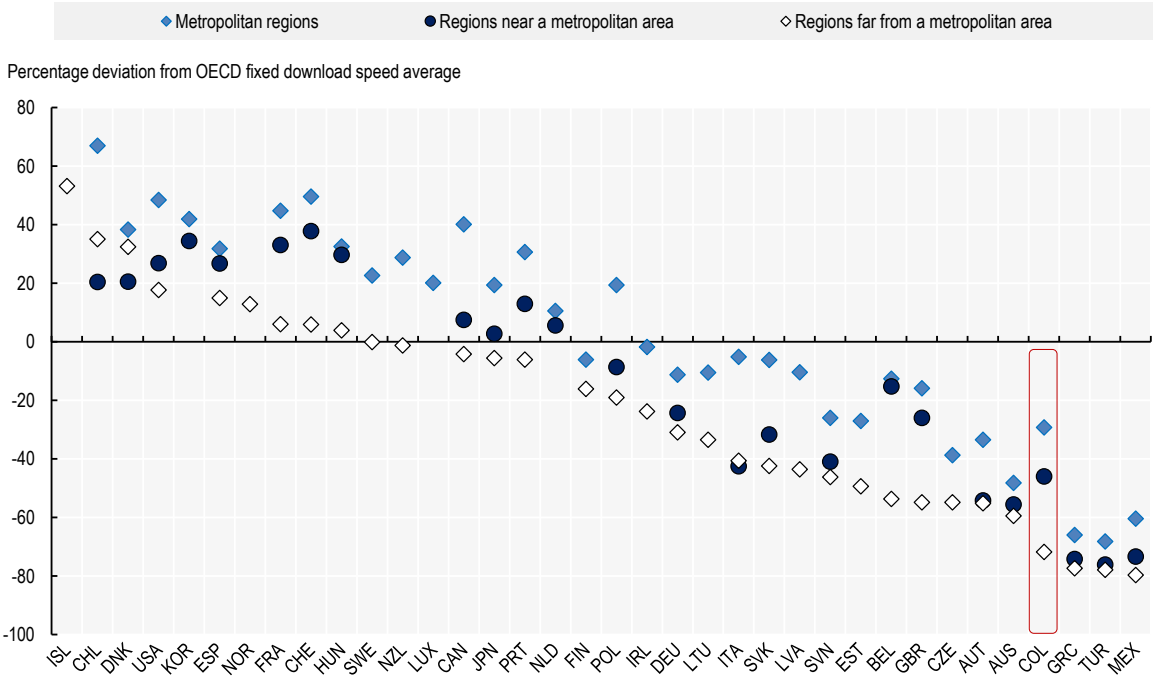
Figure 2.30. Sample of Colombian regions with highest and lowest access to fixed broadband, Colombia, 2022Q1



Note: Percentage represented in the columns shows the share of the population with fixed broadband access.
Source: MinTIC (2022[49]), *Estadísticas MinTIC*, https://colombiatic.mintic.gov.co/679/w3-propertyvalue-36342.html (accessed on 4 December 2021).

People do not only need to be connected but they also need a good connection. However, the speed of broadband services available in Colombian rural areas is considerably lower than in cities. In fact, Colombia is the fourth OECD country with the lowest fixed broadband speed in remote rural regions, relative to the OECD average (2022Q1) (Figure 2.31). Rural and remote areas have their unique "last mile" challenges due to their distance to core network facilities, making it more costly to deploy infrastructure in areas that, many times, are not commercially attractive (OECD, 2021[51]).

Figure 2.31. Gaps in fixed download speeds, by degree of urbanisation, 2022 Q1



Note: The figure presents average download peak speed tests, weighted by the number of tests, as the percentage deviation (in %) from the regional (TL3) average across 36 OECD countries (Costa Rica and Israel excluded). The data for average fixed broadband download Speedtests reported by Ookla measures the sustained peak throughput achieved by users of the network. Measurements are based on self-administered tests by users, carried over iOS..

Source: OECD (2022[52]), *OECD Regions and Cities at a Glance 2022*, OECD Publishing, Paris, https://doi.org/10.1787/14108660-en. OECD calculations based on Speedtest® by Ookla® Global Fixed and Mobile Network Performance Maps.

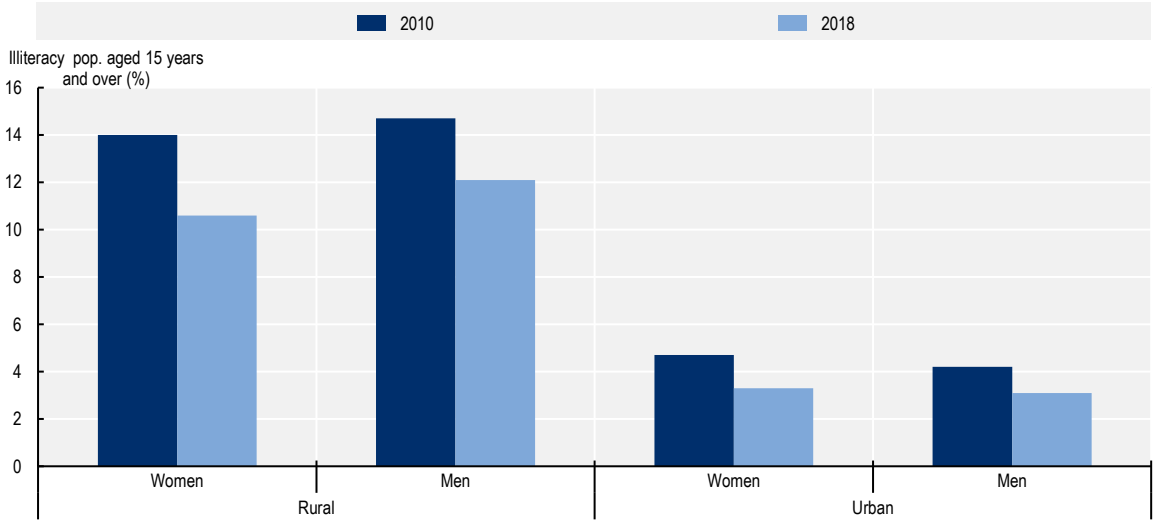
Education in rural regions is progressing well in Colombia, though efforts must continue

Education in Colombia, as in OECD, is one of the fundamental promoters of a country's state of development, both present and future. Therefore, ensuring access to education has a number of multidimensional implications. On the one hand, it promotes the growth and integral development of the population, as well as increases social mobility and breaks cycles of poverty. On the other hand, access to education allows for the accumulation of human capital, e.g. a skilled labour force that can access better-paid jobs, as well as the formation of citizens who are aware of their role in society.

In Colombian rural areas, education outcomes are generally below those in urban areas. In 2018, illiteracy was 10 pp higher in rural areas (over 14%) than in urban areas (over 4%). This territorial difference is coupled with a slight asymmetry in gender illiteracy, whereas rural women reach a level of 10.6%, lower than that observed for rural men (12.1%) (Figure 2.32). Although women in rural areas record higher levels of illiteracy compared to urban areas, the urban-rural gap for women has been reduced by a 2-pp gap between 2010 and 2018 (MinAgricultura, 2018[52]). When compared to other Latin American countries,

Colombia is among those where rural men have the highest illiteracy rates (12.1%), behind Brazil (19.9%) and Ecuador (15.9%).

Figure 2.32. Illiteracy for population aged 15 years and over by sex and area, 2010 and 2018

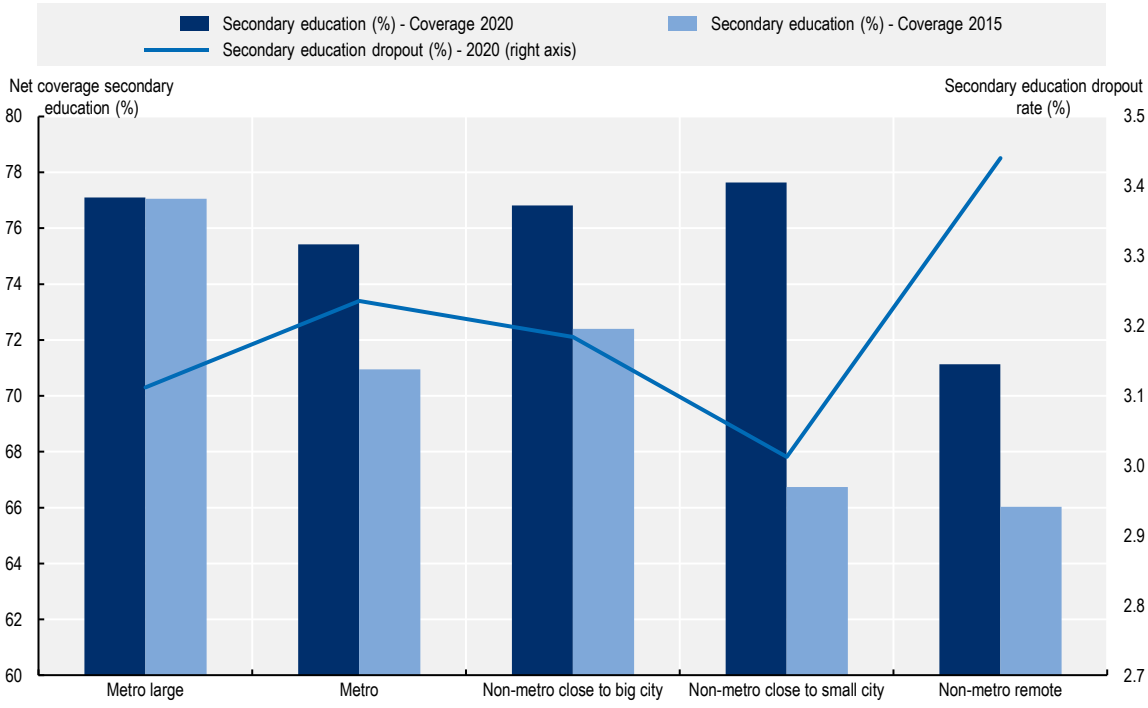


Note: Territorial typology used by DANE, is different from the OECD taxonomy (DANE, 2022[13]).
Source: Own elaboration with data from MinAgricultura (2018[52]), *Situación de las Mujeres Rurales*, https://www.minagricultura.gov.co/ministerio/direcciones/Documents/Situacion%20de%20las%20mujeres%20rurales%20en%20Colombia%202010-2018.pdf (accessed on 4 December 2021).

Primary educational coverage in Colombia is wide. Based on the OECD regional typology, the metro regions (86.5% in 2020) record the highest coverage levels. Rural regions close to large cities (85.7%) and those close to small cities (85%) reach relatively higher values than large metropolitan regions (84.4%). However, those lagging far behind are the remote rural regions (81%), which have much room for improvement.

Secondary education in Colombia has greatly increased since 2015, from an average net coverage of 67.4% to 73.5% in 2020 (Figure 2.33). However, the secondary graduation rate[4] of Colombia (72.3% for men and 82% for women) was slightly below the OECD average (77% and 82.3% respectively). This secondary coverage not only varies by gender but also by type of region. Rural close to small city regions have made the biggest jump in the last 5 years, from 66.7% in 2015 to 77.6% in 2020. Instead, remote rural regions area still lagging and register the highest average values in both coverage (71.1% in 2020) and dropout rates (3.44%) (Figure 2.33).

Figure 2.33. Secondary education coverage and dropout rate in Colombia, OECD regional typology, 2020



Note: Regional classification based on OECD TL3 regions typology. It was built on the basis of education data at municipal level.
Source: OECD calculations base don DANE (2022[13]), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022).

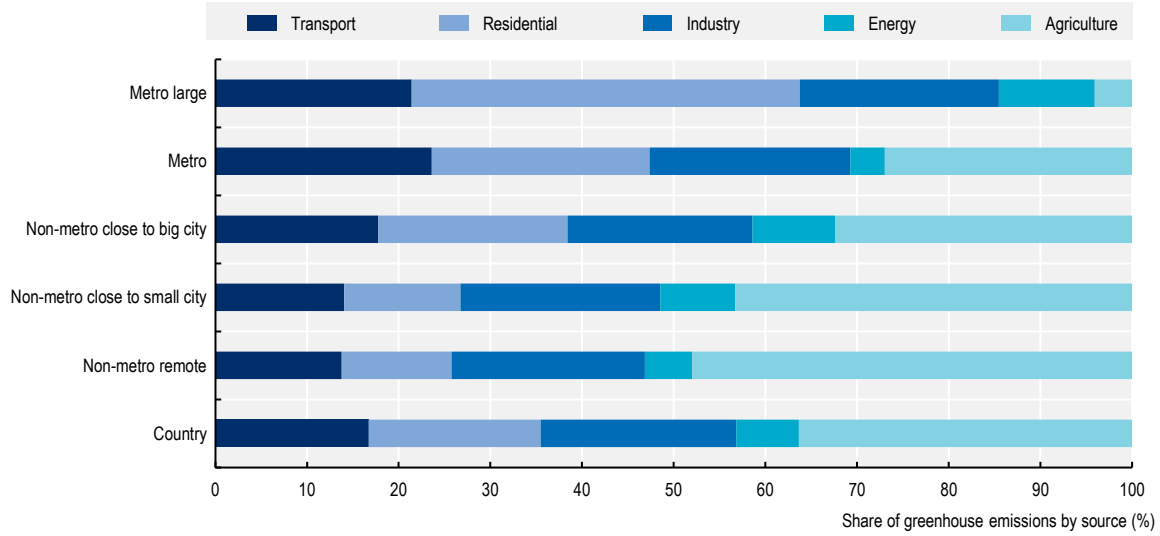
StatLink https://stat.link/njv42h

Environment: Biodiversity as an opportunity and deforestation as a threat

Greenhouse gas (GHG) emissions in Colombia (1.6 metric tonnes of CO_2 eq. per capita in 2019) are relatively low in per capita terms (OECD average of 8.5) (Climate Watch/World Bank, 2020[53]). The country benefits from a relatively high green electricity generation, as over 70% of its electricity capacity is fed by renewable sources, especially hydroelectric plants (OECD, 2022[19]).

However, GHG emissions have increased over the last decade. While in 2010, Colombia emitted 1.4 tonnes of GHG emissions per capita, the figure rose to 1.6 in 2019 (latest year available) as opposed to the decrease in OECD (from 9.8 in 2010 to 8.5 in 2019). The causes of these emissions are not homogeneous across the country (Figure 2.34). Rural regions are responsible for most of the total GHG emissions (73%) in the country, compared to urban regions (27%). This is associated with the greater specialisation of rural economies in agriculture, which is the sector that represents the greatest share of emissions in Colombia (32%). Agriculture represents on average 44% of rural region GHG emissions. In metropolitan regions, residential (9% of the country's GHG emissions) and transport (6%) are the main sources of emissions.

Figure 2.34. GHG emissions by type of region and source in Colombia, 2020



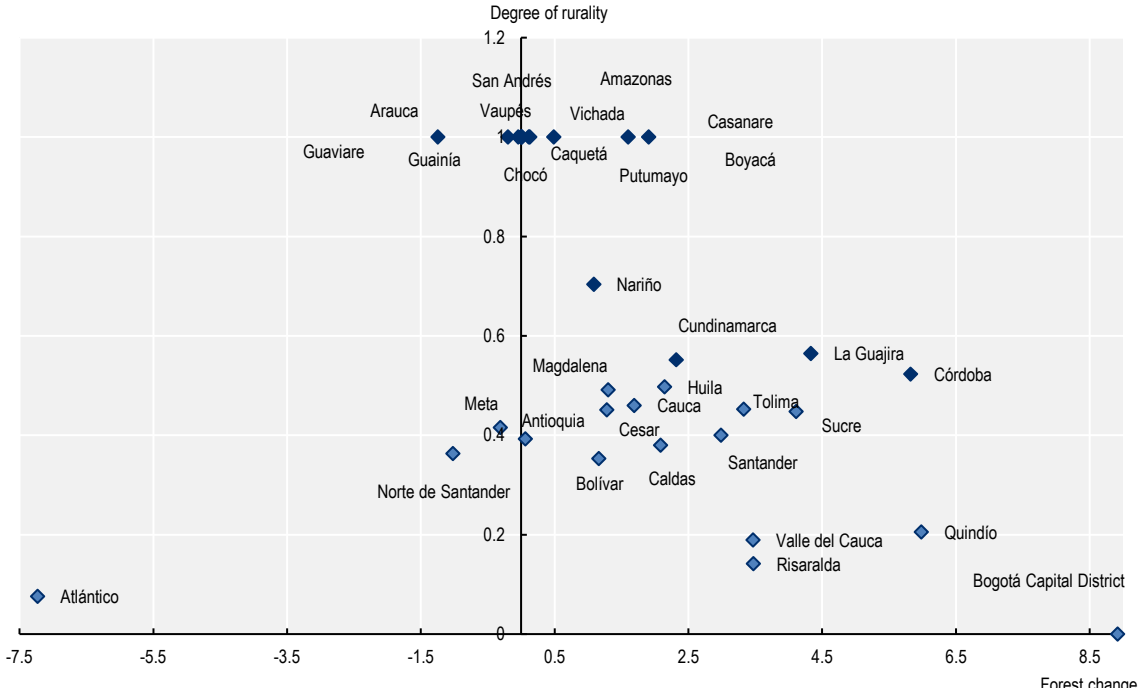
Source: Own calculation with data from OECD (2022[11]), *Regional Economy (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021).

StatLink https://stat.link/rg1eh5

It is worth noting that emissions from land use changes are not included in this disaggregation, which is a relevant issue in Colombia. Deforestation has risen in recent years, about 8 pp in 2020 compared to the total area devoted to the forest the year before. As part of the institutional efforts to tackle this issue, Colombia has committed to an ambitious target of zero net deforestation by 2030. Remarkable institutional efforts to curb deforestation have included a satellite-based early detection system (e.g. Operacion Artemisa)[5], but limited resources for enforcement action only allows following up on a minor fraction of detections (OECD, 2022[17]). Moreover, the country has made efforts in climate adaptation by increasing to 18 000 hectares in the process of restoration, rehabilitation and/or ecological recovery in protected areas of the National Natural Parks System and its areas of influence.

Bogotá leads as the region with the largest increase in forest (+9 pp in 2020) (Figure 2.35). The increase in green spaces and the maintenance of existing ones followed by a lower forest base than in other regions due to its character as a capital city has led to this increase, which would be difficult to achieve in a rural area that already has large tracts of forest. In fact, rural regions are more clustered around values close to 0, with both negative and positive exceptions. The negative rates are most notable in Atlántico with a rate of more than 7 pp, followed by the rural regions of Arauca (-1.2 pp) and Guaviare (-0.2 pp), and the rural regions with positive rates are Córdoba (5.8 pp) and La Guajira (4.3 pp). Urban regions such as Meta (-.3 pp) or Norte de Santander (-1 pp) should also make efforts to curb deforestation and maintain healthy green spaces.

Figure 2.35. Changes in forest area by department and degree of rurality, 2020



Note: Darker markers refer to rural regions and lighter markers to urban regions.
Source: Own elaboration with data from OECD (2022[11]), *Regional Economy (database)*, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021).

Security and land access

Colombia's historic conflict has hampered quality of life and investment attraction in rural communities, which has also led an accelerated rural-urban migration. The National Registry of Displaced Population (RUPD) established that, in Colombia, 774 494 households have been expelled from 1 115 municipalities, which means that 7.3% of the Colombian population lives or has lived in a condition of forced displacement. According to the same registry, 87% of the victims of the conflict were displaced in 2014 (RUPD, 2016[54]).

Rural economic activities have historically been the most impacted by this conflict in terms of the destruction of infrastructure and the intervention of armed actors in economic activity in rural areas, which increases transaction costs for inputs and final products. In addition, it reduced workforce availability due to the recruitment of people by illegal groups, death and displacement. It also impacted investment decisions, making, for example, farmers adopt low-profit production strategies to minimise risks. Studies have estimated that during the 90s, its effects on the growth rate of total GDP were between 0.3 and 0.7 pp per year (Restrepo, Spagat and Vargas, 2003[55]).

Access to land, as well as its distribution and titling, has been one of the most important bottlenecks to rural development in Colombia. Land is also a key asset for unlocking economic opportunities associated with environmental preservation and climate change mitigation in rural areas. While traditional sectors such as agriculture and mining depend on access to land to develop activities, this is also true for sectors such as the bioeconomy, renewable energy and ecotourism and forest conservation. However, green economy sectors can benefit from different forms of land ownership, such as collective ownership, concessions and user rights, indicating that security of tenure can coexist with sustainable development. Land management analysis will receive a central focus in Chapter 5 of this review.

References

Ariza, F. (2022), “Distribución de la propiedad rural en Colombia en el siglo XXI”, *Revista de Economia e Sociologia Rural*, Vol. 60/4, https://doi.org/10.1590/1806-9479.2021.242402. [27]

Calderón-Mejía, V. and A. Ibánez (2016), “Labour market effects of migration-related supply shocks: Evidence from internal refugees in Colombia”, *Journal of Economic Geography*, Vol. 16/3. [36]

Camargo, G. et al. (2020), “Exploring the dynamics of migration, armed conflict, urbanization, and anthropogenic change in Colombia”, *Plos ONE*, Vol. 15/11, https://doi.org/10.1371/journal.pone.0242266. [20]

CEDLAS/World Bank (2021), *Socio-Economic Database for Latin America and the Caribbean*, https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/estadisticas/#1496165425791-920f2d43-f84a (accessed on 24 March 2022). [61]

CEPAL (2019), *Social Panorama of Latin America*, https://www.cepal.org/sites/default/files/publication/files/46688/S2100149_en.pdf (accessed on 2 December 2021). [60]

CEPAL (2016), *Configuración territorial de las provincias de Colombia*, United Nations, http://www.dane.gov.co/files/censo2005/provincias/subregiones.pdf. [8]

Climate Watch/World Bank (2020), *GHG Emissions*, World Resources Institute, Washington, DC. [54]

CPC (2021), *Índice Departamental de Competitividad*, https://compite.com.co/indice-departamental-de-competitividad/#:~:text=En%20el%20m%C3%A1s%20reciente%20Reporte,pron%C3%B3sticos%20de%20todo%20el%20planeta. (accessed on 12 March 2022). [34]

DANE (2022), *Cuentas Departamentales*, https://www.dane.gov.co/index.php/estadisticas-por-tema/cuentas-nacionales/cuentas-nacionales-departamentales. [21]

DANE (2022), *Departamentos y municipios de Colombia (database)*, https://www.datos.gov.co/Mapas-Nacionales/Departamentos-y-municipios-de-Colombia/xdk5-pm3f (accessed on 15 January 2022). [13]

DANE (2022), *Encuesta Nacional de Calidad de Vida (ECV) 2021*, https://www.dane.gov.co/files/investigaciones/condiciones_vida/calidad_vida/2020/Boletin_Tecnico_ECV_2020.pdf (accessed on 26 October 2021). [39]

DANE (2022), *Gran Encuesta Integrada de Hogares, Población ocupada según su actividad económica y por cuenta propia*, http://Accessed on October 2022 athttps://www.dane.gov.co/index.php/estadisticas-por-tema/mercado-laboral/empleo-y-desempleo/poblacion-ocupada-segun-su-actividad-economica-y-por-cuenta-propia. [31]

DANE (2022), *The Great Integrated Household Survey*, https://www.dane.gov.co/index.php/estadisticas-por-tema/mercado-laboral/empleo-y-desempleo. [29]

DANE (2021), *Situación de las mujeres rurales en colombia*, Serie Notas Estadísticas, http://www.dane.gov.co/files/investigaciones/notas-estadisticas/oct-2021-nota-estadistica-situacion-mujeres-rurales-colombia-presentacion.pdf. [42]

DANE (2018), *Censo nacional de población y vivienda 2018*. [14]

DANE (n.d.), *Codificación municipal por provincia y subregión*, http://www.dane.gov.co/files/censo2005/provincias/subregiones.pdf. [9]

DNP (2020), *Misión para el Fortalecimiento del Sistema de Ciudades*, https://www.dnp.gov.co/programas/vivienda-agua-y-desarrollo-urbano/desarrollo-urbano/Paginas/sistema-de-ciudades.aspx#:~:text=El%20sistema%20de%20ciudades%20en,regiones%20y%20para%20el%20pa%C3%ADs. (accessed on 12 December 2021). [4]

DNP (2020), *Plan Maestro Ferroviario*, https://colaboracion.dnp.gov.co/CDT/Prensa/Plan-Maestro-Ferroviario.pdf. [48]

DNP (2014), *Misión para la Transformación del Campo*, https://colaboracion.dnp.gov.co/CDT/Agriculturapecuarioforestal%20y%20pesca/Definicion%20Categor%C3%ADas%20de%20Ruralidad.pdf (accessed on 4 December 2021). [2]

Eslava, M., J. Haltiwanger and A. Pinzón (2019), "Job creation in Colombia vs the U.S.: "Up or out dynamics" meets "the life cycle of plants"", National Bureau of Economic Research, Cambridge, MA, https://doi.org/10.3386/w25550. [38]

FAAE (2020), *La importancia de la biodiversidad*, https://www.faae.org.co/colombiabiodiversa/biodiversidad-en-colombia.html#:~:text=Colombia%20es%20un%20pa%C3%ADs%20con,de%20mam%C3%ADferos%20(471%20especies). (accessed on 12 March 2022). [25]

Fadic, M. et al. (2019), "Classifying small (TL3) regions based on metropolitan population, low density and remoteness", *OECD Regional Development Working Papers*, No. 2019/06, OECD Publishing, Paris, https://doi.org/10.1787/b902cc00-en. [10]

Fernández de Soto, C. (2019), "Diversificar: productividad y calidad", LaRepublica, https://www.larepublica.co/analisis/camilo-fernandez-de-soto-2930538/diversificar-productividad-y-calidad-2930536 (accessed on 2 February 2022). [62]

Fernández, M., A. Ibánez and X. Peña (2014), "Adjusting the labor supply to mitigate violent shocks: Evidence from rural Colombia", *Journal of Development Studies*, Vol. 50/8. [37]

MinAgricultura (2018), *Situación de las Mujeres Rurales*, https://www.minagricultura.gov.co/ministerio/direcciones/Documents/Situacion%20de%20las%20mujeres%20rurales%20en%20Colombia%202010-2018.pdf (accessed on 4 December 2021). [53]

Ministry of External Relations (2021), *Distribución de Venezolanos en Colombia - Corte 31 de Agosto de 2021*, https://www.migracioncolombia.gov.co/infografias/distribucion-de-venezolanos-en-colombia-corte-31-de-agosto-de-2021. [41]

Ministry of Health and Social Protection (2020), *Boletines Poblacionales*. [15]

MinTIC (2022), *Boletin Trimestrial de las TIC*, https://colombiatic.mintic.gov.co/679/articles-198842_archivo_pdf.pdf (accessed on 13 February 2022). [50]

MinTIC (2022), *Estadísticas MinTIC*, https://colombiatic.mintic.gov.co/679/w3-propertyvalue-36342.html (accessed on 4 December 2021). [49]

Murillo, C. (2017), "Desafios para el desarrollo de la red vial terciaria en el posconflicto", *Revista de Ingeniería* 45, pp. 32-39, https://doi.org/10.16924/revinge.45.5. [47]

OECD (2022), *Agricultural Policy Monitoring and Evaluation 2022: Reforming Agricultural Policies for Climate Change Mitigation*, OECD Publishing, Paris, https://doi.org/10.1787/7f4542bf-en. [59]

OECD (2022), *Economic Outlook : Colombia*, OECD, Paris, https://www.oecd.org/economy/colombia-economic-snapshot/ (accessed on 1 March 2022). [19]

OECD (2022), *National Urban Policy Review of Colombia*, OECD Urban Studies, OECD Publishing, Paris, https://doi.org/10.1787/9ca1caae-en. [12]

OECD (2022), *OECD Economic Surveys: Colombia 2022*, OECD Publishing, Paris, https://doi.org/10.1787/04bf9377-en. [17]

OECD (2022), *OECD Regions and Cities at a Glance 2022*, OECD Publishing, Paris, https://doi.org/10.1787/14108660-en. [52]

OECD (2022), *Regional Economy (database)*, OECD, Paris, https://stats.oecd.org/Index.aspx?DataSetCode=REGION_ECONOM# (accessed on 3 November 2021). [11]

OECD (2021), *Better Governance, Planning and Services in Local Self-Governments in Poland*, OECD Publishing, Paris, https://doi.org/10.1787/550c3ff5-en. [24]

OECD (2021), *Bridging Digital Divides in G20 Countries*, OECD Publishing, Paris, https://doi.org/10.1787/35c1d850-en. [51]

OECD (2021), "Colombian responses to OECD questionnaire on rural policy", Unpublished, OECD, Paris. [5]

OECD (2021), *OECD Regional Well-Being (database)*, OECD, Paris, https://www.oecdregionalwellbeing.org/ (accessed on 27 May 2019). [30]

OECD (2020), *Rural Well-being: Geography of Opportunities*, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/d25cef80-en. [1]

OECD (2019), *OECD Principles on Rural Policy*, https://www.oecd.org/cfe/regionaldevelopment/Principles%20on%20Rural%20Policy%20Brochure%202019_Final.pdf. [6]

OECD (2019), *PISA 2018 Results (Volume I): What Students Know and Can Do*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/5f07c754-en. [57]

OECD (2018), *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris, https://doi.org/10.1787/9789264301085-en. [22]

OECD (2017), *OECD Economic Surveys: Colombia 2017*, OECD Publishing, Paris, https://doi.org/10.1787/eco_surveys-col-2017-en. [23]

OECD (2016), *OECD Regional Outlook 2016: Productive Regions for Inclusive Societies*, OECD Publishing, Paris, https://doi.org/10.1787/9789264260245-en. [32]

OECD (2006), *The New Rural Paradigm: Policies and Governance*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264023918-en. [3]

OECD (n.d.), *OECD Regional Well-Being (database)*, OECD, Paris, http://Accessed on June 2022 www.oecdregionalwellbeing.org. [43]

OECD/European Commission (2020), *Cities in the World: A New Perspective on Urbanisation*, OECD Urban Studies, OECD Publishing, Paris, https://doi.org/10.1787/d0efcbda-en. [58]

Otero-Cortés, A. (2019), "Rural labor markets in Colombia, 2010-2019", *Documentos de Trabajo sobre Economía Regional y Urbana*, No. 281, Banco de la República. [35]

Pring, C. and J. Vrushi (2019), *Global Corruption Barometer Latin America & The Caribbean 2019: Citizens' Views and Experiences of Corruption*, https://digitalcommons.fiu.edu/srhreports/toc/toc/37/ (accessed on 3 March 2022). [44]

Restrepo, J., M. Spagat and J. Vargas (2003), "The dynamics of the Colombian civil conflict: A new data set", *Homo Oeconomicus*, Vol. 21, https://www.researchgate.net/publication/5009246_The_Dynamics_of_the_Colombian_Civil_Conflict_A_New_Data_Set. [56]

Rhoades, S. (1993), "The herfindahl-hirschman index", *Fed. Res. Bull., 79, 188*. [63]

RIMISP-DNP (2018), *Lineamientos conceptuales y metodológicos para la definición de una subregionalización funcional en Colombia*, https://colaboracion.dnp.gov.co/CDT/Desarrollo%20Territorial/Portal%20Territorial/Kit%20Asociatividad%20Territorial/Documento%20Metodol%C3%B3gico%20Subregiones%20Funcionales.pdf. [7]

RUPD (2017), *Desplazamiento Forzado en Colombia*, http://www.archivodelosddhh.gov.co/saia_release1/almacenamiento/ACTIVO/2016-07-18/160616/anexos/1_1468895750.pdf (accessed on 15 January 2022). [40]

RUPD (2016), *Desplazamiento Forzado en Colombia*, http://www.archivodelosddhh.gov.co/saia_release1/almacenamiento/ACTIVO/2016-07-18/160616/anexos/1_1468895750.pdf (accessed on 13 January 2022). [55]

The Global Economy (2020), *Roads Quality - Country Rankings*, https://www.theglobaleconomy.com/rankings/roads_quality/. [45]

UPRA (2020), *Informalidad de la tenencia de la tierra en Colombia*, https://www.upra.gov.co/documents/10184/104284/01_informalidad_tenencias_tierras. [28]

UPRA (2017), *Análisis de distribución de la propiedad rural en Colombia. Resultados 2017*, MADR, UPRA. Bogotá. [26]

Warf, B. and M. Storper (2000), "The regional world: Territorial development in a global economy", *Economic Geography*, Vol. 76/1, p. 101, https://doi.org/10.2307/144543. [33]

WEF (2019), *Global Competitiveness Report 2017-2018*, World Economic Forum, http://reports.weforum.org/global-competitiveness-index-2017-2018/?doing_wp_cron=1649002273.3697540760040283203125 (accessed on 12 December 2021). [46]

World Bank (2021), *Database*, World Bank, Washington, DC, https://data.worldbank.org/indicator/ (accessed on 2 November 2021). [18]

World Bank (2020), *World Bank National Accounts Data*, World Bank, Washington, DC. [16]

Notes

[1] In addition to this OECD regional classification, the OECD also uses a granular territorial methodology to classify local units into cities, towns/semi-dense areas and rural areas: *the degree of urbanisation*, which was endorsed at the 2020 United Nations Statistical Commission (OECD/European Commission, 2020[57]). The *OECD Rural Review of Colombia* uses the regional classification to determine the level of rurality to better recognise interactions and trends across different types of regions in Colombia

[2] Primary activities include agriculture, livestock, forestry and fishing activities, mining and quarrying. Secondary activities include manufacturing and construction activities. Tertiary activities include electricity, gas and water activities; commerce; repair of motor vehicles; transport; accommodation and food service activities; information and communication; financial and insurance activities; real estate activities; professional, scientific and technical activities; administrative and support service activities; public administration; education; health; arts, entertainment and recreation; activities of individual households.

[3] The Herfindahl-Hirschman index is adapted to measure employment concentration across sectors. The value of the index is the sum of the squares of the employment shares of sectors over the regional economy. Higher values indicate greater concentration. The formula of the Herfindahl index below represent the sum of the employment share (X) of the sector J in economy m for the time t.:

$$\mathrm{HHI} = \sum_{k=0}^{J} X^2 j, m, t$$

[4] The secondary graduation rate represents the estimated percentage of people who will graduate from secondary education over their lifetime. Data are broken down by gender and shown for upper secondary and post-secondary, non-tertiary levels of education.

[5] Operación Artemisa is a military public policy strategy that aims to protect 200 000 hectares of forest every year. It has been recently renewed (January 2022) by the president of Colombia, Ivan Duque.

Annex 2.A. Sectorial specialisation in Colombian regions

Annex Table 2.A.1. Sectoral specialisation over the total regional economy by department in Colombia, 2020

	Agriculture, forestry and fishing (%)	Industry, manufacturing and mining (%)	Construction (%)	Distributive trade (%)	IT and financial services (%)	Public administration (%)	Real estate (%)	Others (%)	Degree of rurality
Bogotá	0	11	4	20	16	18	16	15	1.0
Atlántico	1	25	6	21	8	18	9	11	0.9
Risaralda	8	18	6	20	8	19	9	13	0.9
Valle del Cauca	6	22	4	17	8	15	15	13	0.8
Quindío	17	8	7	20	6	21	13	8	0.8
Bolívar	6	24	10	15	5	22	8	10	0.6
Norte de Santander	11	12	9	17	6	28	11	8	0.6
Caldas	11	22	6	17	7	19	8	11	0.6
Antioquia	6	24	7	16	9	13	11	13	0.6
Santander	11	28	8	15	7	14	10	7	0.6
Meta	12	53	4	11	3	10	4	3	0.6
Sucre	11	11	9	16	5	36	6	5	0.6
Cesar	10	38	4	12	4	20	6	6	0.5
Tolima	18	17	7	17	6	20	7	8	0.5
Cauca	14	23	8	11	4	24	6	10	0.5
Magdalena	17	7	5	19	6	32	7	6	0.5
Huila	20	15	8	16	6	22	7	7	0.5
Córdoba	12	18	5	14	6	31	4	10	0.5

	Agriculture, forestry and fishing (%)	Industry, manufacturing and mining (%)	Construction (%)	Distributive trade (%)	IT and financial services (%)	Public administration (%)	Real estate (%)	Others (%)	Degree of rurality
Cundinamarca	17	30	6	15	4	14	6	7	0.4
La Guajira	6	28	9	15	4	32	6	3	0.4
Nariño	17	5	8	19	5	31	10	6	0.3
Amazonas	20	5	4	24	4	37	4	2	0.0
Arauca	20	42	4	9	2	16	4	1	0.0
Boyacá	13	27	10	17	4	16	7	6	0.0
Caquetá	17	4	9	16	5	35	9	5	0.0
Casanare	14	46	3	19	2	9	3	2	0.0
Chocó	21	16	4	12	3	41	2	1	0.0
Guainía	11	7	13	14	3	49	4	1	0.0
Guaviare	23	3	7	14	3	42	5	1	0.0
Putumayo	7	26	7	15	3	33	6	4	0.0
San Andrés	2	4	3	53	6	21	6	5	0.0
Vaupés	8	1	9	21	1	54	5	1	0.0
Vichada	34	2	9	8	3	38	5	1	0.0

3 Towards a comprehensive rural policy in Colombia

Colombia has untapped growth potential in its rural areas and a holistic rural policy approach can help to mobilise them. This chapter analyses Colombia's national policy framework for rural development and proposes recommendations to strengthen it. It begins with a short overview of the evolution of rural development policy in Colombia. It then examines the current rural policy approach and the main programmes to improve rural well-being. Finally, it outlines the untapped potential in rural economies and identifies a number of policy actions to improve Colombia's rural policy, building on the OECD Principles on Rural Policy.

Assessment and recommendations

Main messages

Colombia has already undertaken multiple diagnoses and developed action plans that recognise the need for a comprehensive policy to improve well-being of rural communities. Particularly, the 2014 Mission for the Countryside and the 2016 peace agreement recognised the need to develop an inter-sectoral and holistic rural policy strategy to address the main rural challenges and thus attain sustainable peace and national goals. The government has developed positive initiatives to mainstream rural needs across sectoral ministries with the National Sectoral Plans from the 2016 peace agreement and to adopt a placed-based approach for rural development with the regional pacts in the National Development Plan (PND) and the Development Programs with a Territorial Approach (PDETs).

Colombian rural economies have untapped growth opportunities across different economic sectors. They include unexploited agricultural value chains due to low levels of rural innovation and lack of incentives and formal spaces to create synergies with off-farm activities (e.g. manufacturing, tourism or energy). Other economic sector in rural regions such as tourism, renewable energy and mining can also leverage rural assets (cultural diversity and environmental endowments) to preserve the environment, empower minorities and boost traditional economic activities.

Despite the improvements in rural policy and the variety of rural assets, Colombia has not been able to move forward with an integrated rural policy approach. The design and implementation of non-agricultural policies for rural regions is highly fragmented without mechanism of coordination or join actions to attain greater scale. Moreover, a number of strategies in the national policy framework largely associate rural development with agriculture development (e.g. Countryside with Progress in the 2018-2022 PND), while some national policies lack recognition of particular rural needs and characteristics (e.g. innovation and entrepreneurship policy).

Moreover, the Ministry of Agriculture and Rural Development (MADR) has led rural development in the country, but with an agricultural bias and with limited co-ordination capacity with other ministries that conduct relevant policies to rural development (tourism, mining, etc.). On top of that, scale and impact of rural and agricultural programmes are hindered by the lack of a consolidated rural information system, which leads to weak focalisation of beneficiaries and a passive approach to deliver rural policies. All this leads to a rural policy being conducted on a sectoral basis, with duplication of tasks and without a clear coordination to address cross-cutting rural challenges. The Integrated Rural Reform (IRR) has scope to be the basis of an overarching national rural policy, but needs better coordination with economic sectorial policies and embracing forward-looking strategies to help communities benefit from megatrends (e.g digital transition-remote working or automation).

Recommendations

- ***Ensure policies across all levels of government make use of a consistent rural definition that recognises the diversity of rural areas and acknowledges urban-rural linkages*** (supported by Chapter 2).

  To this end the government (mainly the Departamento Nacional de Planeación [DNP] and National Administrative Department of Statistics [DANE]) needs to:

  - Make better use of the Mission for the Countryside definition and the sub-regional classification for policy purposes. The current statistical classification can be further improved by recognising different types of rurality and territories with strong rural and urban linkages. As in Chile, Colombia could create a commission to standardise this definition.

- ***Establish an integrated information system for rural areas***.

  To this end, the government could either implement a single system of rural information or ensure the interoperability of existing systems. To this end, the government (mainly DNP, DANE and MADR with the co-operation of other ministries) needs to:

  - Accelerate rural information projects that are underway across the government, including the Multipurpose Cadastre (*Catastro Multipropósito)* and other information initiatives (e.g. My Rural Registry) and ensure their interoperability, amongst themselves and with established population databases, like SISBEN 4.
  - Improve collaboration among MADR (especially the Rural Agricultural Planning Unit [UPRA]), DNP and DANE to ensure that the rural information system reflects the characteristics of different rural areas and combines information from the different agencies of the ministry and private sector (e.g. National Federation of Coffee Growers of Colombia).

- ***Create a comprehensive national rural policy*** focused on people's well-being and with an inter-sectoral approach, by harmonising the IRR with other productive and transversal policies. This can take the form of a national public policy (e.g. CONPES) that harmonises the IRR with other productive rural polices and is guided by the OECD Principles on Rural Policy. To this end the government (Presidency, DNP, MADR with the co-operation of ministries) needs to:
  - Clarify the place and goals of rural policy and agricultural policy in the PND and programmatic and sectoral strategies. Making a clear difference between rural, agricultural and countryside concepts in policy documents will help create synergies among sectoral policies for rural economies.
  - Clarify the role and capacity of MADR in the design and implementation of rural policy and the co-ordination of sectoral policies for rural development (Chapter 6 will build on this).
  - Ground the comprehensive national rural policy in differentiated local needs by adapting policies and actions to different types of rural regions based on functional interactions. To this end, the comprehensive national rural policy could leverage planning instruments such as PDETs to gather local priorities to territorialise national plans.
  - Include in the comprehensive national rural policy a forward-looking approach to involve effects of megatrends (digitalisation and demographic change) and remote working on rural development. Ireland's national rural policy can be a guide for Colombia.
  - Adapt national horizontal policies to the characteristics of rural regions, for example in innovation or entrepreneurship policies. This includes rural proofing national policies to identify practical needs and strategic actions.
  - Ensure actions to support urban-rural partnerships and joint projects are included in the comprehensive rural strategy.
  - Adopt an inter-sectoral approach that allows ministries to play a distinct role in rural development while acting in co-ordination under an overarching strategy. To this end, this comprehensive rural policy could identify synergies with agricultural and non-agricultural (e.g. tourism and mining policy) policies shaping rural development. This involves*:*
    - Promoting inter-sectoral programmes around agriculture to help accelerate productivity and diversify the economy. The operability of the Agricultural Innovation System needs to be accelerated and its co-ordination with national innovation systems improved. Moreover, co-ordination of agricultural programmes with other sectors like tourism and bioenergy can help unlock new income sources for farmers and improve their resilience.
    - Facilitating bioenergy projects in agriculture by developing joint initiatives between MADR and the Ministry of Mining and Energy and disseminating the know-how gained

in palm oil and sugar crops. As these projects can be difficult in nature given the complex chain of sourcing, sorting and treatment of waste, they should first target big farms and associations of small farmers with support for technological adoption and capacity. Likewise, the country has still untapped potential in ecotourism (e.g. nature watching) to help finance the protection and management of protected areas and biological diversity.

- Leveraging tourism policy to valorise rural traditional cultures and protect the environment. Tourism projects empower local communities to take a lead role in participating in tourism activities. Practices in Canada and Finland can guide Colombia in the development of ethno-tourism.
- Ensuring that renewable energy plans are aligned with rural policies and can integrate rural economies within larger supply chains. While renewable energy projects create few direct jobs in rural communities, its supply chain from the construction to maintenance phase can provide jobs locally and new income sources to existent or new rural companies.
- Helping shape a mining policy that focuses on improving well-being of local communities and adopting digitalisation (mine electrification and automation) to reduce mining carbon footprint and strengthen the mining value chain to produce and transform minerals that are needed for green technologies (e.g. batteries, solar panels). The energy transition requires a large volume of minerals: self-sufficiency in this supply chain and the capacity to transform them within an environmentally sustainable process (e.g. green hydrogen) can open new growth opportunities for rural areas.

Introduction

Rural regions in Colombia are a source of wealth and environmental and social well-being for Colombia and even the world. They host a variety of cultures with unique traditions, including more than 100 Indigenous and Afro-Colombian communities, along with one of the largest biodiversity in the world and rich natural resources for growth, e.g. fertile land with no growing seasons, the 6th country in terms of volume of water, the 2nd Latin American country in terms of wind speed and important minerals' endowment. Rural economies are gradually reducing their reliance on agriculture and extractive industries and diversifying into activities such as tourism, energy or manufacturing. Linked to increasing development in Colombia, rural communities have also improved the quality of life of citizens.

However, rural regions face acute challenges that have long been affecting development and increasing the gap with cities. Rural communities host the country's highest poverty rates, labour informality and violence along with the lowest productivity levels, access to quality services and land formality. All of these bottlenecks prevent growth and investment across different economic sectors (e.g. agriculture, tourism, mining) and prevent rural assets being taken advantage of in Colombia (e.g. biodiversity, natural endowments or multiculturalism).

In the last decades and particularly since the peace agreement in 2016, the country identified the need for an integral rural policy approach that addresses the main structural challenges for development, as depicted in Chapter 2, and mobilises assets and resources in rural regions beyond agriculture. This is a relevant evolution as rural policy in the country has long focused on security, poverty reduction and primary activities (agriculture and extractive industries). Yet, despite the recognition of this comprehensive policy approach, rural policy in Colombia has remained highly focused on the agricultural sector, with fragmented policy actions to support non-agricultural activities in rural economies that could lead to higher levels of well-being for rural citizens.

Colombia's cross-cutting challenges and inter-sectorial untapped growth opportunities in its rural areas require adopting an integrated and coordinated rural policy approach to realise them. This chapter thus analyses Colombia's rural policy framework and identifies a number of recommendations to strengthen it. The chapter begins with a short overview of the evolution of rural development policy in Colombia. It then describes the current rural policy approach and the main programmes to improve rural well-being before identifying areas of improvement that can mobilise untapped potential in rural economies through a number of policy actions that will also be developed in the remaining chapters of the study.

The evolution of the rural policy vision over the past years in Colombia

The rapid urbanisation process in the country has historically captured most of the policy agenda and investments in quality of life, leaving rural development policy confined to security, primary activities and social assistance (Machado, 1999[1]; UNDP, 2011[2]; World Bank, 2014[3]; DNP, 2015[4]) (Box 3.1). These topics have occupied the centre of Colombia's policy agendas for rural development and prevented efforts to solve more structural challenges and open up new growth opportunities outside agriculture. Such bias and lack of integrated policy for rural communities have led to important urban-rural inequalities across different dimensions of well-being (economic, services and environment), thus undermining social cohesion.

After Colombia's trade openness in the 1990s, the rural economic policy focused on agricultural and primary sector competitiveness to participate in international markets (Government of Colombia, 2021[5]; Machado, 1999[1]). This focus was mainly in the form of supporting competitive advantages of natural assets and eliminating public monopoly in various economic dimensions, for example, agricultural marketing and fossil fuels. In the 2000s, an active security policy and fight against illegal activities were

the top policy priority for rural regions, with important interventions to fight guerrilla groups in rural areas and eradicate illegal crops.

Box 3.1. A short overview of the evolution of rural policy in Colombia

- **Before the 1990s**, rural policy focused on the stability and security of rural areas, many of them controlled at the time by guerrilla and other illegal groups, which often replaced government activities like justice, education or even primary healthcare.
- **In the 1990s**, Colombia's trade openness led economic policy to focus on the competitive advantages of rural areas, mainly linked to agriculture and the extraction of natural resources. These policies fostered greater openness in extractive industries, oil, gas and mining, with international players. The Colombian government eliminated its monopoly in various economic dimensions, for example fossil fuel production or agricultural marketing.

  The government negotiated a large number of trade agreements including with Mercosur, Central America, Canada, Chile, the United States (US) and the European Union, which opened new markets for agro-food products and reduced food prices for consumers. At the end of the decade, a first mission that proposed an integral solution for rural development was conducted but recommendations were not fully taken on board in development plans (Machado, 1999[1]).
- **In the 2000s**, rural development policy and related institutions underwent transformations within the framework of the public administration renewal policy. The institutional framework for rural policy focused on strengthening the productive and competitive capacities in the agricultural sector in the context of an open economy, addressing the imbalances in access to factors of production and producing a comprehensive strategy to overcome rural poverty.

  There were attempts to achieve a comprehensive intervention in rural areas with the expedition of the Rural Development Statute (Law 1152 of 2007), which was later declared unconstitutional by the constitutional court, or the creation of the Colombian Institute for Rural Development (INCODER) to merge the programmes for access to land, land adaptation and co-financing the development of rural investment projects. However, security and the fight against illegal activities were top priorities to support rural development. Military confrontations in rural areas increased and aerial spraying of glyphosate was common in many remote regions of the country, often affecting non-illegal crops.
- **In the 2010s**, in the framework of the peace process agreement with the guerrilla group Revolutionary Armed Forces of Colombia (FARC), the government appointed a special mission of experts to provide guidelines to improve rural policy development- the Mission for the Transformation of the Countryside. This mission called for a renewed vision of rural development that rethinks the conception that limits the rural sector to the productive primary sector. Instead, it recommended a greater focus on people and the conditions to ensure the social, environmental and productive development of rural communities, with the inclusion of different local actors in the planning of territorial development. In 2011, the government created the Rural Agricultural Planning Unit (UPRA) to guide the management of the territory for agricultural uses. In 2013, the Ministry of Agriculture created the office of Vice Minister of Rural Development (Decree No. 1985, 2013).

  In 2015, the government aimed to enhance efficiency (following recommendations from the Mission for the Countryside) by reforming of the Colombian Institute for Rural Development (INCODER), creating instead two specialised agencies: the Agency for Rural Development (ARD) and the National Land Agency (ANT).

The first point of the peace agreement also set the need for an integrated rural policy with a priority focus on improving land use management and restitution of land dispossessed by the actions of illegal armed organisations.

- **2018 and post-peace agreement**, the IRR from the peace agreement set the bases of a place-based approach to rural development, with territorial programmes that help identify local priorities and co-ordinate sectoral policies at the subnational level (e.g. PDETS) by addressing some structural challenges for rural development. Yet, there is still no comprehensive national rural policy that covers all rural communities.

Source: Centro Nacional de Memoria Histórica (2013[6]), *La Política de Reforma Agraria y Tierras en Colombia*, https://centrodememoriahistorica.gov.co/wp-content/uploads/2020/01/La-pol%C3%ADtica-de-reforma-agraria-y-tierras-en-Colombia.-Esbozo-de-una-memoria-institucional.pdf; Franco Cañas, A. and I. De los Ríos Carmenado (2011[7]), "Reforma agraria en Colombia: evolución histórica del concepto. Hacia un enfoque integral actual", *Cuadernos de desarrollo rural*, Vol. 8/67, pp. 93-119; Machado, A. (1999[1]), "El sector rural y el plan de desarrollo",. Cuadernos de Economía, 18(30), 167–179. https://revistas.unal.edu.co/index.php/ceconomia/article/view/11435

Colombia's peace process placed the need for an integrated rural policy at the centre of the agenda

The 2016 peace agreement placed rural development as an engine for national growth and social cohesion. In 2012, the government of Colombia initiated a peace process with the FARC, with the aim to put an end to 50 years of conflict in the country. This process uncovered the urgent need to move away from a single vision of agricultural policy towards an integrated rural policy approach. During the negotiation process, the vice ministry office of rural policy was created (2013) with the aim to co-ordinate and address cross-cutting issues in rural economies, including infrastructure and land formalisation. Moreover, a number of policies were put in place to target the provision of public goods as a starting point for agricultural competitiveness, including science, technology and innovation support.

In 2014, the government appointed a mission of experts – the Mission for the Transformation of the Countryside (hereinafter, the Mission for the Countryside) – to set the vision and provide the guidelines to boost rural development in Colombia and thus support the peace process in the country. The mission acknowledged that "the traditional strategy of productive inclusion in isolation has not been effective and has made it difficult to fight against rural poverty" (DNP, 2015[4]).

The mission rightly pointed out the need to adopt an integrated and inclusive approach to rural development that recognises the diversity of rural areas and goes beyond the focus on agriculture development, with the aim to focus on improving economic, social and environmental dimensions for rural communities. To this end, the mission proposed 6 strategies with specific actions that involved policy and institutional changes (about 185 recommendations). Many of the strategies proposed in this document involve rural proofing the variety of sectoral strategies in the country (e.g. education, health, innovation) (Box 3.2).

Box 3.2. Policy recommendations emerging from the Mission for the Transformation of the Countryside

The mission proposes six strategies to promote comprehensive development (economic, social and environmental) in the Colombian countryside, built from the territory and with a view of the rural area beyond agriculture:

1. **Social inclusion of rural inhabitants** by closing social gaps with the provision of the basic goods of social interest (food, education, healthcare, social protection, housing, water and sanitation). This strategy aims to eliminate urban-rural gaps in terms of accessibility and provision of services, for instance by creating directorates specialised in rural matters within the ministries, primarily education and health, adapting services to each type of rural area and support food security with schools.
2. **Family farming and productive inclusion in non-agricultural activities** by allowing small producers and rural workers – both agricultural and non-agricultural – to access productive resources and better integrate production and marketing chains. For instance, by establishing a standard definition of agricultural family to guide policy interventions and creating a Rural Development Fund to guide investments.
3. **A competitive agricultural sector** based on the adequate provision of sectoral public goods and services, including technical assistance, technology, innovation, transport, energy and information and communication technology (ICT) infrastructure as well as land adaptation; agricultural sanitation; protection of property rights; information, security and justice. It advocates for state policy to diversify agriculture exports, for instance by creating a new Agency for the Promotion of Agricultural and Agro-industrial Investments and improving the role of agricultural innovation institutions
4. **An environmentally sustainable development**, which seeks to maintain and improve the country's heritage in terms of water, soil, biodiversity and forest wealth, while adequately assessing the provision of ecosystem services, managing the effects of climate change on the agricultural sector and promoting activities that make productive and environmentally sustainable use of our ecological wealth. For instance, by increasing the rates for water use and strengthening payment for environmental services (PES).
5. **Territorial planning and development** aimed at guaranteeing an appropriate environmental, social and productive ordering of rural territories, seeking an integral development of such territories and their articulation with the system of cities, for instance by designing appropriate land use plans, with tools that induce an orderly use of the land and creating a land fund with redistributive purposes.
6. **A comprehensive and multi-sectoral institutional arrangement**, with clear long-term policies articulated with a long-term horizon (ten years) and the guarantee of the availability of adequate and stable public resources to implement such policies. This institutional arrangement must also guarantee a broad presence and execution capacity at the territorial level and the participation of organised civil society and the private business sector, for instance by creating a national policy on rural development.

A number of recommendations from the mission materialised in the following years, in particular those related to agriculture productivity, the creation of the land fund and the reform of the Colombian Institute for Rural Development (INCODER), whose tasks were divided into a new Agency for Rural Development (ARD) and the National Land Agency (ANT).

The guideline document of the mission supports and aligns with the peace agreement conducted by the Colombian government with the FARC. The first point of this agreement referred to the need to develop an Integral Rural Reform (IRR) to attain sustainable peace in the country. This reform calls for a comprehensive view that focuses on people to transform Colombian rural areas and eliminate poverty. The reform contains four pillars:

1. Improving use and access to and of land. It involves the creation of a Land Fund to redistribute land to peasants without land and make land restitutions to victims that were dispossessed during the conflict.

2. Establishing special Development Programs with a Territorial Approach (PDETs) that target the most needed municipalities: 170 municipalities were identified as those having suffered most of the violence during the internal conflict, with the highest poverty levels and weakest institutional presence (known as PDET municipalities). These municipalities receive co-ordinated government interventions for development.
3. Creating 16 national plans to promote basic goods and services in rural regions around:
   a. Infrastructure: roads, irrigation districts, electricity, connectivity.
   b. Social development: healthcare, education, housing and drinking water.
   c. Incentives for the productivity of family farming: technical assistance, promotion of co-operatives, insurance and marketing, among others.
   d. Labour formalisation.
4. Ensuring food and nutritional security through the strengthening of the family economy and local markets, as well as promoting campaigns for the production and consumption of foods with high nutritional value, taking into account the nutritional characteristics of each region.

The government made a commitment to implement all points of the agreement in 15 years. The government built an Implementation Framework Plan (PMI) to set the actions to implement the peace agreement. A national policy (CONPES Document 3932 of 2018) was established to link the commitments defined in the PMI with the planning, programming and monitoring public policy instruments (PND, 2018[8]).

An important element of rural reform is the approach to adopting a territorial policy approach. The government developed the PDETs as planning and management instruments to operationalise a place-based approach focusing on improving development in 170 municipalities identified as the most affected by the conflict, which are grouped into 16 subnational territories. These municipalities make up 36% of the national territory. Each PDET is operationalised through an Action Plan for Regional Transformation (PATR) that covers each of the 16 targeted territories, which are built across local meetings to identify and prioritise needs and opportunities. These PATRs have a planning scope of 10 years and should be updated every 5 years. Overall, the place-based approach (e.g. PDET) adopted by the IRR is well designed and represents an important tool to identify needs jointly with the community and address them through co-ordinated policy actions.

The goal of the national rural plans in the third point of this reform covers key priorities affecting rural regions in Colombia. These priorities are in line with the main rural challenges identified in Chapter 2 So far, the government of Colombia has developed 16 national plans tailored to rural development that focus among others on education, healthcare, housing, road and irrigation infrastructure among others (See Table 3.3). If well-coordinated, these national plans can achieve a reduction in rural poverty, especially extreme poverty, and narrow the gap between rural regions and cities.

The integrated approach proposed by the Mission for the Countryside and the peace agreement goes in the right direction and is well aligned with Principle 9 of the OECD Principle on Rural Policy “Implement a whole-of-government approach to policies for rural areas”.

Box 3.3. OECD Rural Policy Principle 9: Implement a whole-of-government approach to policies for rural areas

- Engaging with all sectors and levels of government to integrate national policies that improve the well-being of rural areas.
- Identifying and addressing the barriers to policy coherence across ministries, public agencies and levels of government.

- Setting incentives, regulations and co-ordination mechanisms to mitigate conflicts and manage trade-offs (e.g. land use, mining, agriculture, energy and water).
- Maximise policy complementarities across sectoral strategies through integrated and co-ordinated rural policies (e.g. co-ordinating transportation investments).

Source: OECD (2019[9]), OECD Principles on Rural Policy, https://www.oecd.org/cfe/regionaldevelopment/Principles%20on%20Rural%20Policy%20Brochure%202019_Final.pdf

The National Development Plan (PND) 2018-2022 adopts a sectoral approach to rural development, with differentiated policies by type of region

The PND 2018-2022 integrated some of the recommendations from the Mission for the Countryside and the peace agreement and proposed a number of thematic and transversal policies (called pacts) with the overarching goal to improve legality, entrepreneurship and equity in the country (DNP, 2018[10]). There is a specific pact for each of these 3 objectives, plus 13 transversal pacts and 1 pact for productivity and equity in regions. These pacts are implemented jointly, with the aim of attaining 20 thematic objectives that target the main challenges in the country.

The Pact for Entrepreneurship includes an institutional strategy entitled "Countryside with Progress: An alliance to boost the development and productivity of rural Colombia" that aimed at boosting development and productivity in "rural" communities. This strategy had five objectives with specific goals:

1. Improve **land tenure and land use planning** to boost agricultural development, productive inclusion and legal certainty. It sets two specific goals:
   a. Increase the number of formalised titles on private properties from 1 056 to 24 350.
   b. Increase the number of formalised titles to improve access to land from 17 835 to 24 160.
2. Encourage **agricultural productivity transformation** through production planning, cluster development and agro-industrial value chains.
3. Improve **sanitary conditions of agricultural products** to benefit from the Free Trade Agreements through a plan comprehensive of health admissibility. This objective aimed at integrating 48 new agricultural products in international markets.
4. Allocate at least 50% of agricultural sector investment to **public goods and services to ensure farmers have access to active assets**. This aimed at increasing the number of producers served with access to technology, products and service support (agricultural extension service).
5. **Promote the inclusion of small producers** to improve their conditions, both social and economic. This aimed at increasing the number of producers who benefited from inclusion strategies, including access to finance, markets and better risk management, from 33 642 to 91 511.
6. **Strengthen rural household income generation**, based on the promotion of employability and entrepreneurship conditions associated with non-agricultural activities that promote social and productive inclusion in rural territories, according to the categories of rurality.
7. **Modernise and consolidate sectoral institutions and inter-institutional co-ordination** and articulation to promote the transformation of agricultural and rural production at a territorial scale.

The vision of this strategy was set out as follows: "In 2022, the Colombian countryside is a determining factor in economic growth, it increases its competitiveness, strengthens its agribusiness and advances in the inclusion of small and medium producers in the markets. It boosts agricultural exports and achieves proper management of soils for agricultural purposes". The leading ministry of this strategy is MADR.

Yet, out of the seven objectives of this strategy, only the first five had concrete goals with a budget attached to the National Public Investment Plan 2019-2022. This led to a strategy that was monitored mainly based

on actions related to improving agricultural productivity (five first objectives), despite the inclusion of objectives that go beyond agriculture (Objective 6).

The other nine transversal pacts also defined relevant policies for rural development, which would be implemented jointly by different ministries. They included the harmonisation of agricultural production with the conservation and efficient use of natural resources (Pact for Sustainability), generating a sustainable model for digital connectivity in rural areas (Pact for the Digital Transformation of Colombia) or connecting the territory, increasing the links between city and countryside (Pact for the Digital Transformation of Colombia), among others.

The PND had also an important focus on empowering subnational governments in the development process and adopting an approach to mobilise functional relations across territories. These goals are materialised through the Pact for Decentralisation and Regional Pacts These pacts included the strategic projects identified in spaces for dialogue and agreement with the regions, which aimed at boosting the regional economies according to their vocation and potential. Therefore, they set differentiated development goals in nine macro-regions (functional groups of departments).

A fragmented rural policy highly focused on agriculture

While the diagnosis from the Mission for the Countryside and the peace agreement called for the need for an integrated rural policy with an inter-sectoral approach, these recommendations have not yet fully translated into policy actions. The recommendations suggested by the Mission for the Countryside did not become a coherent national policy, which led to partial implementation of only a number of recommendations through a sectoral approach. In particular, the call for a long-term national rural policy (CONPES) with an institutional structure to articulate rural policies was never implemented. Furthermore, the national policy framework in Colombia still carries a bias towards agricultural policy and often describes agricultural development as rural development.

National plans overlap "agricultural development" and "rural development" concepts

Across OECD countries, there is an increasing recognition to move beyond agriculture in the design of rural policy, and englobe agriculture as one of its pillars. Rural development policy is a territorial policy targeting the needs of a specific area, whereas agricultural policy is largely dominated by sector-based goals. Although in several OECD countries agricultural policy has long included underlying objectives of rural development in its design, it remains largely dominated by sectoral approaches. For example, in broad terms, a major objective of rural development policy had been job creation in rural regions, while agricultural policy often focused on increasing production and farmers' incomes.

Across OECD countries, strategic areas such as innovation and quality of life have gained weight in national rural polices, ranked as extremely important by 22 out of the 34 surveyed OECD countries, according to the 2018-19 OECD institutional survey (2020[11]). This does not hinder the high relevance of agriculture in rural policy, which is still a common feature across many OECD countries. Most OECD countries still classify agriculture as the most important strategic sector for rural policy (27 out of the 34 countries that answered this question).

In Colombia, the national policy framework still equates and uses rural policy and agricultural policy interchangeably. The PND 2018-2022 and many national policies in Colombia overlapped the concept of "agricultural development" with "rural development" and used the term "countryside" to refer to "rurality". In policy, concepts are relevant as they can send ambiguous signs if their meaning is unclear or their use is not systematically attached to a policy objective. This is the case of the PND 2018-2022's "Countryside with Progress: An alliance to boost the development and productivity of rural Colombia" strategy that aimed to develop "rural Colombia", but five out of the seven measures of this strategy focused on improving the

conditions for the agricultural sector and were linked to monitoring indictors. For example, the action line "Improving public goods and services", a priority that is transversal to rural development, mainly targeted goods and services for agricultural productivity, such as agricultural extension services and irrigation.

It is worth noting that *Countryside* with Progress was supported by other pacts that include relevant policies for rural development, such as digital connectivity (e.g. Pact for the Digital Transformation of Colombia) or improving rural education (Pact for Equity), but its co-ordination is not clearly institutionalised in the PND. Many actions in Objective 7 of the Countryside with Progress strategy, which aimed to improve inter-ministerial rural development co-ordination, have not been implemented, such as the National Unified Rural Agricultural Information System.

The overlap between agriculture and rural policy also occurs across other policies at the national level. For example, innovation policy for rural areas has been reduced to agricultural innovation, while wide innovation polices in the country have lacked a spatial approach. In 2021, the national government approved a national innovation policy led by the Ministry of Science, Technology and Innovation (CONPES 3080) to address the main challenges of innovation in the country. While this policy has a specific action (No. 13) that aims to strengthen regional capacities in science and technology, the strategy does not recognise the particularities of rural context to adopt and diffuse innovation.

Moreover, many economic strategies in the national development policy framework in Colombia have lacked a placed-based approach, which can end up benefitting more actors in urban areas. This is the case of the Pact for Entrepreneurship, the PND 2018-2022's pillar to boost economic development, which highlights the need to enhance the economic activity for rural areas; yet its different strategies and goals are rather general without addressing the particular needs and characteristics of rural economies. For example, key strategies in this pact such as "Increase threefold the number of high-potential entrepreneurship in the country" or "Reduce the costs for small- and medium-sized enterprises (SMEs) to access financial instruments" (DNP, 2018[10]) did not propose particular actions for potential entrepreneurs or SMEs looking for funding in rural areas, some of which might need a special approach due to the low access to broadband Internet or lack of Interaction with official institutions to access information on programmes or the financial mechanism.

The agricultural bias when referring to rural policy, in particular economic-related policies, might be explained by the agricultural sector setting clearer, more compact objectives than rural policy. Agriculture in Colombia, as in most countries, also has a clear constituency where the interest of farmers is easily identified and represented politically (Federal Reserve Bank of St. Louis, 2021[12]).

In a country of rapid urbanisation and high urban-rural inequalities in education and access to markets, the design and implementation of national development policies without clear recognition of the diverse characteristic of rural areas would likely mostly benefit urban firms and communities. Urban actors have often better access to information and closer relationships with policy makers. Overall, unlocking the potential of emerging rural economic activities and their interlinkages requires a set of policies for rural development that go beyond agricultural and social protection, and instead target the broader growth potential of rural regions.

Rural development policy is a territorial policy targeting comprehensively the needs of a specific area to improve people's well-being, whereas agricultural policy is largely dominated by sector-based goals

MADR heads the rural policy in Colombia with a strong agricultural focus

MADR is the institution in charge of agricultural, fishing, forestry and rural development in Colombia (Decree 1985 of 2013). The ministry, together with its affiliated bodies, has two main objectives:

- Promote rural development with a territorial approach and strengthen the productivity and competitiveness of agricultural products, through comprehensive actions that improve the living conditions of rural inhabitants, allow the sustainable use of natural resources, generate employment and achieve sustained and balanced growth of the regions.
- Promote the articulation of institutional actions in rural areas in a focused and systematic manner, under principles of competitiveness, equity, sustainability, multisectorality and decentralisation, for the socio-economic development of the country.

The policy scope of the ministry includes defining, implementing and evaluating policies for agriculture, fisheries and forestry, with a particular focus on poor populations and victims. With regards to the design and implementation of the rural policy with a territorial approach, the ministry is in charge of policies related to land use management of rural property and productive soil, productive capacities and income generation in rural communities and management of rural public goods (Decree 1985 of 2013). The leading institutional role of MADR in rural development is consistent with the relevance that agriculture still has in the employment of rural communities (52% of rural employment).

This institutional structure where the agriculture ministry is the lead ministry to delivery rural policy is also common across 62% of OECD countries (21 out of the 34) reviewed by the 2018-19 OECD institutional survey (2020[11]). Yet, in an increasing number of countries (8), the lead ministry on rural policy is not directly associated with agriculture or rural development, e.g. the Ministry of Enterprise and Innovation in Sweden or the Ministry of Industry, Business and Financial Affairs in Denmark.

Based on the PND's vision, MADR developed the Agricultural and Rural Development Policy 2019-2022, which defines the strategic guidelines and actions to improve the productivity, competitiveness and profitability of the rural economy. The strategic actions, objectives and monitoring indicators of this policy are detailed in the Institutional Strategic Plan 2019-2022.

This policy highlighted the need to address land property rights, infrastructure for rural areas, agricultural productivity and rural-urban migration as main challenges for rural development. It also stresses the need to mobilise non-agricultural activities, given the undergoing diversification process in rural economies. The policy had three policy pillars, each with a number of strategic actions (Table 3.1):

1. Rural development, which includes the social and productive organisation of the land, investment in the provision of public goods and services and the generation of productive capacities and income by the rural population.
2. Productivity and profitability for greater competitiveness of the agricultural sector.
3. Modern institutional framework to manage and implement the actions of the two former strategies.

Table 3.1. Colombia's Agricultural and Rural Development Policy 2019-2022, pillars and objectives

Policy pillar	Objective	Policy strategy
Rural development	Improve the income of the rural population	Promotion of youth and women's access to education and technical training
		Development of income generation strategies for rural entrepreneurs
		Promotion of services for the commercialisation and development of markets for small producers
		Empowerment of rural women
	Manage the use of rural property and productive land	Formalisation of rural property
		Sped-up land restitution processes
		Organisation of productive land use within the agricultural frontier
		Improvement of land suitability (e.g. land irrigation)

Policy pillar	Objective	Policy strategy
	Articulate and invest in the supply of sectoral and non-sectoral goods and services	Strengthened Programme of Rural Housing*
		Improvement of information systems for the agricultural sector
		Progress with the Agricultural Innovation System
Productivity and Profitability for greater competitiveness of the agricultural sector	Strengthen the articulation of the agricultural chains to improve competitiveness	Strengthened ordering of production through chain organisations (e.g. identify geographical areas with the greatest competitiveness)
	Optimise marketing channels for agricultural products	Contract farming (harvest and guaranteed sales)
		Production in prioritised chains
	Promote science, technology and innovation policies for agricultural development	Generation and strengthening of territorial capacities in science and technology to promote local and regional development
	Generate capacities for climate change adaptation and mitigation of the agricultural sector	Promotion of comprehensive management of greenhouse gas (GHG) adaptation and mitigation actions in the sector
	Strengthen financial, decision-making, risk management and rural entrepreneurship capacities in rural population	Instruments for agricultural producers to manage the different risks associated with their activity
	Strengthen the agricultural and agro-industrial foreign trade policy	High-level agenda to overcome barriers and gain access to key international markets
	Strengthen and optimise the State Health and Safety Policy for the agriculture sector	Strengthened execution of sanitary and phytosanitary plans for control, eradication and declaration of disease-free zones
Modern institutional framework	Strengthen the operational, administrative and financial capacity of the ministry to optimise its value chain	
	Strengthen information and knowledge management to improve institutional capacities	Promotion of the generation of information and knowledge transfer
	Promote the digital transformation of the governance of the agricultural sector and rural	Implementation of the Digital Government policy
		Strengthened management of information in the agricultural and rural sector

Note: *The portfolio of rural housing was transferred to the Ministry of Housing and Territory in 2020. MADR is in charge of finishing the projects that were not implemented until 2020.
Source: MADR (2019[13]), *Politica Agropecuaria y de Desarrollo Rural 2018-2022*, https://sioc.minagricultura.gov.co/Documentos/20190326_politica_agro_2018-2022.pdf.

The 2018-200 MADR flagship programmes targeted and addressed the relevant structural issues of Colombian farmers

MADR's main flagship programmes in the last years have addressed the relevant structural issues of farmers in Colombia. As in most OECD countries, rural economies in Colombia are characterised by low levels of economies of scale, the greater cost to move goods and people due to distance to markets and a small internal market (in economic diversity and labour force), which require relying on selling products abroad (OECD, 2020[11]). Therefore, MADR has developed a number of programmes to support associativity to help attain economies of scale, entrepreneurship and technologic adoption to increase value-added in local products as well as lower costs to reach markets and sell products directly to consumers:

- Productive Alliances (*Alianzas Productivas*), which aims to improve associativity and thus economies of scale among producers. It links small rural producers with markets through an agribusiness scheme with a formal business partner, and a profitable production proposal. This programme co-finances agricultural projects through productive or commercial alliances, among other initiatives.

Supporting a culture of associativity is a seminal action to benefit from economies of scale in terms of efficiencies in investment (acquiring a machine for a large number of producers) and in competitive final prices for producers (selling in greater quantities). In Colombia, this instrument can also help to improve social cohesion in rural communities that face low levels of trust due to internal conflict and high levels of displacement, which bring new local actors to the agricultural sector.

- Entrepreneurial Countryside (*El Campo Emprende*), which fosters entrepreneurship culture in the poorest communities. The ministry's more comprehensive and productive programme covers agricultural and non-agricultural activities.
- Contract Farming (*Agricultura por contrato*), which helps reduce barriers to reaching markets and consumers and the uncertainty that characterises agricultural marketing processes. For example, the contract farming programme has connected about 300 000 producers to markets by linking them to commercial partners: in 2020 alone, it benefitted around 120 000 smallholders by reaching purchased agreements with 757 buyers. It organises meetings and knowledge spaces between the associations of agricultural producers and demanding industries. Main products covered by this programme include fruit and vegetables, coffee, fishing, cocoa and milk (OECD, 2021[14]).
- Support to agricultural productive chains aims to strengthen the commercialisation of agricultural chains by directing incentives to rural producers to improve their productive conditions and invest in infrastructure and logistics for the commercialisation.

In addition, several other programmes complement support to farmers via subsidies to promote financial inclusion (e.g. programmes from the Fund for Financing of the Agricultural Sector- Finagro), improve commercial skills (MADR model of support services for marketing) and boost the adoption of new technologies and innovation in agriculture (programmes from Agrosavia). All of these productive programmes are also complemented by a large set of projects focused on land suitability and regularisation (Chapter 5).

The ministry has also developed and adopted national policies that target specific actors in rural economies and has a transversal objective of enhancing gender equality in rural communities. Some programmes, for example, focus specifically on empowering women, such as the programme for rural women's associations (Pacific Opportunities). Another outstanding example is the Strategic Guidelines for Public Policy for Peasant, Family and Community Agriculture (Resolution 000006 of 2020), which is in line with the third objective of the IRR from the peace agreement (MADR, 2017[15]).

These programmes go in the right direction to eliminate pressing barriers that are preventing greater income in rural economies. In fact, these programmes are in line with several recommendations from the Mission for the Countryside, particularly to "improve commercialisation and operation of regional and national wholesale markets and intermediation networks" and "promote associativity of small farmers through capacity building". In particular, the four flagship programmes have a number of advantages that are worth leveraging:

- Progress on reaching out to a large number of farmers. These programmes have increased the coverage of agricultural policy to support remote communities, with a focus on the population with the greatest needs, including victims and former members of guerrilla groups. The use of new databases to identify the poorest population (Sisben IV) has been a cornerstone of greater focalisation.
- A focus on gender guides many of these policies to improve women's access to government support for productive projects.
- Greater involvement of private actors, e.g. banks, supermarkets, international retailers and research centres, to implement agricultural policies through programmes like Contract Farming.

Despite the right design of MADR programmes, they mostly target agricultural productivity, with less attention to other relevant areas of rural development

In fact, the strategic actions to attain the objectives in the rural policy pillar of the Agricultural and Rural Development Policy 2019-2022 mostly target and support land regularisation and the competitiveness of the agricultural sector. Apart from the objective of land use management and productive soil, the materialisation of the investment in public goods and services as well as the strategies to improve rural income is focused on the agricultural sector.

To attain the policy goals of the pillar on rural development, the implementation plan (Institutional Strategic Plan 2019-2022) has mainly defined strategic programmes that focus on the agricultural sector. For example, the objective of improving income for the rural population adopted three strategic actions that all mainly focus on improving income for farmers (Table 3.2). In MADR's strategic actions for the management of rural public goods, such goods and services are mainly focused on those needed to support the production and commercialisation of the agricultural sector (e.g. infrastructure for food transformation and storage). Likewise, MADR innovation programmes primarily target agricultural innovation.

Table 3.2. Strategic actions of the MADR Institutional Strategic Plan 2019-2022 on rural development

Selected objective of the policy pillar on rural development	Strategic action	Implementation mechanism (selected)
Improve the income of the rural population	Strengthen the planning of rural development programmes and projects and manage their correct execution	• Formulate Comprehensive Agricultural and Rural Development Plans
	Promote access to productive factors and working capital	• Technical support for the formulation of Departmental Agricultural Extension Plans
	Promote and strengthen the commercial and associative capacities of the rural population	• Strengthen productive associations through the Productive Alliances programme • Support producers with productive inclusion strategies through the Entrepreneurship Countryside programme • Support rural women with productive strategies

Source: MADR (2019[16]), *Plan Estratégico Institucional 2019-2022*, https://www.minagricultura.gov.co/planeacion-control-gestion/Gestin/PLANEACION/Planes_Estrategicos_Sectoriales_Institucionales/Planes%20Estrategicos%202019%20-%202022/Plan_Estrat%C3%A9gico_Institucional_2019_2022_Primera_Versi%C3%B3n.pdf.

The Vice Minister of Rural Development, the main MADR body in charge of rural development policy, focuses mainly on supporting agricultural development. This vice ministry was created in 2013 to develop rural development policies, improve co-ordination with off-farm policies implemented by other ministries and complement policies undertaken by the Vice Minister of Agriculture. Currently, the vice ministry focuses on four main policy streams: rural women, land use management and productive use of land, management of rural public goods and productive capacities and income generation projects.

However, all of the tasks of the vice ministry end up focusing on supporting the agricultural sector, with a low focus on off-farm activities. Beyond the work stream on rural women and land use management, the other strategies related to public goods and income generation benefit mainly farmers or productive projects in agriculture. The limited scope of the vice ministry to manage non-agricultural-related policies was exacerbated in 2019 with the transfer of the rural housing policy to the Ministry of Housing, City and Territory.

Newer programmes, such as Entrepreneurial Countryside, aim at targeting the creation of added value in the rural economy at large and have made important progress in including other economic activities. Yet,

beneficiaries of the programme are still a majority of farmers or individuals with agricultural-related projects, which can be associated with the fact that the programme targets the poorest municipalities and has greater expertise in agriculture activities. This is not negative as such but the low interoperability with programmes linked to other ministries (tourism, mining) hinders the potential for developing value-added projects outside agriculture.

Finally, most of the MADR budget is dedicated to market interventions (57%), while the rest (43%) is aimed at providing the basic goods for farmers to reduce the cost of production and increase productivity (Parra-Peña, Puyana and Yepes, 2021[17]). This balance is still below the recommendations of PND 2018-2022 and the OECD (2015[18]), which recognised the need to increase public goods over subsidies. Overall, most MADR programmes are directed to small producers (66% of programmes), with a high concentration of instruments targeting vulnerable populations (47%) (Parra-Peña, Puyana and Yepes, 2021[17]).

The current lack of a common information system hampers the effectiveness of rural-related programmes

Beyond the differentiation of rural or agricultural policies, the lack of consolidated information systems prevents productive programmes in MADR, as well as in other ministries, from attaining lasting improvements in rural well-being.

Productive programmes face issues in identifying the right support for communities, which leads to low adaptability to particular needs. The government has implemented programmes to support the deployment of productive facilities in communities, often with initial investment. However, the lack of granular information on producers and rural inhabitants leads to failures in implementation. For example, some programmes providing technological assistance have ended up offering machines (e.g. pasteurised milk machines) that are not adapted to the electrical capacity of the municipality.

The lack of granular information makes it difficult to reach the right beneficiaries of the programmes and leads to inequalities across beneficiaries and municipalities in access to the right information. This has led to a passive approach in the way official productive programmes are delivered, as they tend to rely on voluntary applications. Generally, programmes of agricultural productivity work under application calls, which might exacerbate local inequalities and leave those most in need out of the programme. In rural ecosystems with high inequalities of information and skills, voluntary programmes risk benefitting those producers with greater administrative capacities (e.g. to fill out documents) or networks to access information. Illiteracy or different languages (e.g. for Indigenous peoples) is still an issue in many of the country's communities, making it difficult for them to access official programmes.

The low capacity to identify the right beneficiaries can reach unsuitable candidates, those with a lack of strategies or capacity to make the most of the programme. For example, some associations participating in the Productive Alliances programme have only been created to access a specific programme and have not lasted in time. In Risaralda, by 2021, around 20% of associations created to access these programmes only registered the documents, without implementing the programme or a productive project. Moreover, some productive facilities remain underutilised, as their provision was not suited to the sustainability of the programme: 16% of public goods that have been delivered to associations are not in use due to problems linked with the sustainability of the productive project (MADR, 2020[19]).

The government has set strategies to address the information issue from different institutional actions but implementation is still slow. UPRA is a technical entity attached to MADR, which manages the Information System for Agricultural Rural Planning (SIPRA), the Information and Communication Network of the Agricultural Sector (Agronet), municipal agricultural evaluations (EVA), and is in charge of the technical secretariat for sectoral information. In addition, two relevant MADR strategies include:

- The strategy to identify existing sectoral public goods (productive, processing, storage and post-harvest and marketing infrastructure) but the information programme had only covered 43.9% of the country's municipalities by 2020.
- The National Unified Rural Agricultural Information System (SNUIRA) aims to improve the capture, quality, frequency and timeliness of information for decision-making. This programme Agronet to consolidate agricultural sector information and knowledge management on the web portal.

MADR is also developing My Rural Registry to identify the beneficiaries of sectoral programmes and thus obtain interoperable information from farmers.

The government has also put in place Sisbén IV, a characterisation system of potential beneficiaries of social programmes (people with the highest levels of multilevel poverty) and has made progress on land use information systems (*Catastro Multipropósito*, see Chapter 5) and tertiary roads (e.g. DNP's artificial intelligence mapping, see Chapter 3). Furthermore, the national strategy of Colombian Spatial Data Infrastructure aims to integrate and display geographical information. However, aside from SISBEN IV, these programmes are far from finished and attaining interoperability to provide integrated rural information for policy making and society. A project to improve the interoperability of SIBEN IV and My Rural Registry is underway but in the first stages.

An additional main bottleneck for the interoperability of rural information is the inability of agencies operating programmes to input information collected locally into a general system. By regulation (e.g. habeas data), the data of beneficiaries from these agencies are anonymised and cannot be shared or disclosed across agencies. This issue is more critical when it comes to information exchange among different sectoral policies attending the same rural municipalities, e.g. energy and agricultural programmes. This particular issue adds to the historical lack of rural information, which makes it one of the greatest structural barriers to improving efficiency and lasting outcomes of rural policies in Colombia.

If the government is to ensure the effectiveness of a national rural policy along with the plans under the IRR, it should prioritise the improvement of rural information systems in the next couple of years. This could be done either by implementing a single system of rural information or by ensuring the interoperability of existing systems. This involves accelerating many of the information projects that are underway, e.g. *Catastro Multipropósito* and My Rural Registry. Furthermore, MADR along with the DNP should better involve the National Administrative Department of Statistics (DANE) to ensure the rural information system can also reflect the characteristics of different rural areas and combine information from the different ministry agencies and producer associations (e.g. National Federation of Coffee Growers of Colombia).

For productive inclusion programmes to reach out to the wider population, the government should adapt the requirements of official programmes to the characteristics of each rural region. This first requires a good characterisation of the different rural communities, to establish differentiated schemes for the same programme and jointly develop an application process with local leaders. Application formats should then be simplified and adapted to different languages and illiterate people.

Pre-identifying beneficiary conditions in person, before approving programmes, could be also adopted as standard policy for rural programmes. Many programmes only rely on the documents sent by applicants without validating the suitability of its conditions. As this pre-identification implies a cost, the government could translate that obligation to the programme operator. A good example is the rural housing policy of the Ministry of Housing, City and Territory, which asks the programme operator (in this case, the construction company) to validate in person the conditions of the pre-selected beneficiary (land conditions, etc.). Once the constructor has validated the suitability of the beneficiary, the latter is formally included in the programme. This implies an extra validation cost for the operator (constructor).

The issue of information adds up to other structural problems in the implementation of rural programmes discussed in Chapter 6, including a lack of co-ordination among agencies and non-governmental organisations (NGOs) in the implementation of productive projects and a monitoring and evaluation system

that measures outputs instead of outcomes, which incentivises coverage of programmes instead of long-term results.

While addressing these issues can improve the efficiencies of MADR's flagship programmes and help gain scale in public investments, these programmes in isolation will not lead to the sustainable development of rural regions. Structural challenges (e.g. lack of transport and digital infrastructure or land insecurity) need to be addressed as a high priority to facilitate the lasting impact of these programmes. To this end, co-ordinating rural policies with other ministries is of particular importance.

There is room to better co-ordinate non-agricultural policies for rural development in Colombia

Beyond the policy scope of the Agricultural and Rural Development Policy, Colombia also has a variety of national policies that shape economic growth and well-being in rural communities. Some of these policies are transversal across ministries (e.g. innovation, productivity), while others have a clearer sectoral focus and are managed by a single ministry (Table 3.3). Yet, there is not a clear mechanism in Colombia to co-ordinate the national rural plans and other off-farm policies, beyond the scope of these plans (e.g. innovation). Colombia's national sectoral approach in rural policy is made of independent actions from different ministries on non-agricultural sectors, where each ministry can design and implement rural-related policies (tourism, mining) without consulting MADR or any other co-ordinating body.

An important step to include the rural vision across different sectoral policies is the creation of national sectoral plans for rural development set out in the peace agreement IRR. As mentioned before, the third point of this reform called for the development of 16 national plans around 3 sectoral axes identified as highly relevant to rural development: infrastructure, social development (education, healthcare) and productivity of family farming. While the development of these plans took considerable time (Only until 2022 all the 16 plans were developed), they constitute a good basis to promote development and rural investment co-ordinating with a comprehensive approach. Thus, the priority for Colombia going forward should be to recover the time invested in the planning phase to accelerate their implementation.

Table 3.3. National policies shaping rural development

Policy (selected)	Lead ministry/institution	Mostly focus on rural regions?
Horizontal plans		
National Development Plan	All-Design is co-ordinated by DNP	No
National Science Technology and Innovation Policy	Ministry of Science, Technology and Innovation	No
National Policy for Entrepreneurship	Ministry of Commerce, Industry and Tourism	No
National Productive Development Policy	Ministry of Commerce, Industry and Tourism	No
National sectoral policies from the IRR		
National Road Plan for Regional Integration (2018)	Ministry of Transport	Yes
Special Plan for Rural Education (2021)	Ministry of National Education	Yes
National Rural Health Plan (2021)	Ministry of Health and Social Protection	Yes
National Rural Electrification Plan (2018)	Ministry of Mines and Energy	Yes
National Rural Connectivity Plan (2019)	Ministry of Environment and Sustainable Development	Yes
Progressive Social Protection Plan to Guarantee the Rights of Rural Workers (2020)	Ministry of Labour	Yes
National Plan for the Promotion of Solidarity Economy and Rural Cooperative (2020)	Ministry of Labour	Yes

Policy (selected)	Lead ministry/institution	Mostly focus on rural regions?
National Irrigation and Drainage Plan for the Peasant and Community Economy (2020)	Ministry of Agriculture and Rural Development	Yes
National Plan for the Promotion of the Commercialisation of the Production of the Peasant, Family and Community Economy. Responsible (2020)	Ministry of Agriculture and Rural Development	Yes
Plan to Support and Consolidate the Income Generation of the Peasant, Family and Community Economy (2020)	Ministry of Agriculture and Rural Development	Yes
National Plan for the Massive Formalization of Rural Property (2021)	Ministry of Agriculture and Rural Development	Yes
National Plan for Comprehensive Technical and Technological Assistance and Research Promotion (2022)	Ministry of Agriculture and Rural Development	Yes
National Rural Plan of the System for the Progressive Guarantee of the Right to Food (2021)	Institute of Family Welfare along with the different entities in the Intersectoral Commission for Food and Nutritional Security – CISAN	Yes
National Participatory Environmental Zoning Plan (2021)	Ministry of Environment and Sustainable Development	Yes
National Plan for Drinking Water Supply and Basic Sanitation (2021)	Ministry of Housing, City and Territory	Yes
National Plan for the Construction and Improvement of Rural Social Housing (2017)	Ministry of Housing, City and Territory	Yes
Other relevant plans for rural development (selected)		
Agricultural and Rural Development Policy	Ministry of Agriculture and Rural Development	Yes
National Food and Nutrition Security Policy	Ministry of Agriculture and Rural Development	Yes
Tourism: • Policy of cultural tourism • Policy of Sustainable tourism	Ministry of Commerce, Industry and Tourism	Yes
Mining Policy of Colombia	Ministry of Mines and Energy	Yes
Environment: • National Policy for the Comprehensive Management of Water Resources • National Policy for the comprehensive management of biodiversity and its ecosystem services	Ministry of Environment and Sustainable Development	Partially
Education: National Public Policy for Early Childhood	Ministry of National Education	No
National Policy for the Provision of Healthcare Services	Ministry of Health and Social Protection	No
National Logistics Policy	Ministry of Transport and Infrastructure	No

Source: Own elaboration based on Presidential Counsel for Stabilization and Consolidation (2022[20]), *Sectoral National Plans*, https://www.portalparalapaz.gov.co/loader.php?lServicio=Tools2&lTipo=descargas&lFuncion=descargar&idFile=839.

Despite the existence of institutional committees to co-ordinate rural or agricultural policy, these mechanisms have little convening power and are very little used. MADR has seven sectoral advice and co-ordination bodies (e.g. National Council for Agrarian Reform and Peasant Rural Development) to promote inter-ministerial co-ordination on main topics of rural development (Chapter 6). Yet, these co-ordination mechanisms do not have binding participation nor formally established frequency, so meetings are rare. The underutilisation of these co-ordinating bodies has been already detected by the Mission for the Countryside (DNP, 2015[4]).

Furthermore, important objectives conducted directly by MADR that could help improve rural development do not undertake inter-ministerial co-ordination. The Ministry of Agriculture promotes farming without exploring the possibilities and potentials associated with the impulse of relationships between economic activities and actors, at least in a formal manner. For example, the efforts in collecting information on

available agricultural production infrastructure, which can feed larger databases on rural infrastructure, are not being co-ordinated with information on other goods in rural areas, which might include schools, healthcare centres or non-food manufacturing infrastructures (paper, refiners).

The next section identifies areas of untapped growth potential in Colombian rural regions and calls for a comprehensive rural policy approach that can further mobilise this growth potential, raise income and living standards and improve well-being of citizens living in rural regions.

Mobilising the growth potential of Colombian rural economies

Rural regions in Colombia are a key source of well-being and growth for the country and of great environmental importance to the world. As seen in the previous chapter, rural communities have several competitive advantages and valuable assets, including:

- **Multi-ethnic culture** with more than 100 Indigenous communities, Afro-Colombian groups, Roma and peasant communities, which have a variety of cultural traditions.
- **Biodiversity**. Colombia hosts about 10% of the planet's biodiversity, ranking as the 3rd country in the world in terms of biodiversity and the 1st in the diversity of birds and amphibians.
- **Important natural resources endowment**, ranking as the sixth country in terms of volume of water, the second Latin American country in terms of wind speed and high solar radiation throughout the year along with fertile land with no growing seasons and rare minerals.
- **Diverse agricultural production can lead to stronger rural value chains** such as coffee.

These assets complement the variety of economic activities in rural economies, including agriculture, manufacturing, retail, mining or tourism. In fact, despite the important focus on agricultural policy for rural areas, the tertiary economic sector (e.g. energy and public activities like education and healthcare) represents the greatest source of gross value-added in rural regions (60% in remote rural regions in Colombia, see Chapter 2).

Moreover, there exist a variety of rural economies with different connections to markets and economic structures. Some rural municipalities close to big cities host and develop manufacturing and industrial activities, benefitting from the proximity to urban markets and lower land cost (e.g. rural municipalities around Bogotá or Medellin). Other rural economies rely on important natural assets, including biodiversity of flora and fauna (e.g. Amazonas and Cauca) and cultural diversity with Indigenous and Afro-Colombian peoples (e.g. Guajira and Choco), which can be an asset for tourism and the bioeconomy. Some rural economies stand out thanks to their natural resources endowment in renewable energy production and minerals to support the energy transition (e.g. municipalities in Antioquia, Guajira and Vichada).

Relevant rural sectors like agriculture, tourism or energy would all benefit from an integrated view to mobilising the economic spectrum in rural regions, with policies that go beyond specific sectoral approaches. This inter-sectoral approach can create new development paths for communities and improve resilience and well-being.

Agriculture as an engine for non-agricultural activities

Agriculture is the main employer in Colombian rural areas and continues to be an important sector for the Colombian economy. This sector employs about 62% of the rural workforce and accounts for 16.4% of workers in the country (around 3.9 million people), which is more than Latin American countries like Mexico (12.8%), Brazil (9.4%), Chile (9.2%) or Argentina (0.1%). Likewise, agricultural contribution to national gross domestic product (GDP) (6.3%) is higher than the average of OECD (3.6%) and Latin American (4.5%) countries.

The diverse climate and topography allow for the cultivation of a wide variety of crops and forest products. Thermal floors also influence cultivation. Crops (e.g. coffee, banana, cocoa) account for most of Colombia's agricultural GDP (71% in 2019), with an increase in the last 15 years (63% in 2005), while the rest is linked to the livestock subsector (23%), forestry (3.2%) and fisheries (2.9%).

In the global context, Colombia ranks third in coffee and fourth in oil palm production. Moreover, it is the 13th-largest producer of beef and poultry in the world (USDA, 2021[21]).

Agriculture and forestry

In the last decades, Colombia has shifted away from short-cycle (temporary crops, e.g. cotton, barley, beans, corn, potatoes, soybeans and vegetables) towards long-cycle (permanent, e.g. coffee, oil palm, sugarcane, banana and other fruits) crops (OECD, 2015[18]). Long-cycle crops account for the largest share of harvested crop area in the country (60% in 2018), above short-cycle crops (30%) and forestry (10%) (OECD, 2021[14]). Colombia is the third-largest producer of coffee in the world. This crop accounts for the largest share of harvest area in the country followed by maize, rice, sugarcane and plantain

The country is increasingly diversifying its agricultural exports. Coffee remains the most important crop in terms of value-added contribution but its share has declined and the number of other crops has increased in importance, including rice, palm oil, beans or avocados. The sector has proved its capacity to adapt to new products and value chains with the increasing adoption of avocados. In less than a decade, this non-traditional product for Colombian farmers reached the top four of Colombia's most exported agricultural products, together with coffee, banana and flowers.

In forestry, the Amazon region is characterised by a commercial forestry system, including small agricultural activities for local consumption along with pastures.

Livestock

Colombia ranks fourth among Latin American countries in cattle farming, after Brazil, Argentina and Mexico. Six percent of cattle is raised exclusively for dairy purposes (1.5 million), 58% is raised exclusively for meat (13.7 million) and 36% for both meat and milk (8.2 million).

In terms of growth, poultry farming has grown faster than other livestock enterprises owing to the use of modern techniques. Production grew almost fourfold over the last two decades.

The ongoing quest for greater agricultural productivity

Despite this potential, the share of agriculture in the national GDP has decreased in the last decades. It has been associated on the one hand with the country's development process and the increase of its service sector. On the other, persistently low agricultural productivity along with low-quality standards to open international markets have negatively affected the economic performance of the sector, despite its relatively high impact on employment.

The sector productivity is persistently low. While the productivity of the agricultural sector has increased in the last decades, its rate of growth lags behind other countries in the region. Between 2001 and 2016, productivity has grown (measured through the total factor productivity or TFP) at a slower pace (0.6 %) than the average of Latin American countries (1.8%), including Brazil (3.1%), Peru (2.5%) or Chile (2.2%) (Parra-Peña, Puyana and Yepes, 2021[22]).[1] It has translated into relatively low growth of agriculture GDP in Colombia (2.8% from 2000 to 2019), relative to countries like Chile (3.8%) and Peru (3.7%).

The low productivity growth of Colombian agriculture is driven by a combination of factors, some directly linked to the agricultural sector and its structure and others related to general conditions in rural areas of Colombia.

Factors directly linked to agricultural include:

- **Small farms based on family farming**. Atomised agricultural production is composed of family farms operating on relatively small areas of land (65% of agricultural production units operate in less than 4 hectares) and with an incipient culture of co-operatives. Family farms have on average less income per unit of work and are more labour force intensive than large farms (Hamann et al., 2019[23]; Berry, 2017[24]). Therefore, most farmers in Colombia have too little land to be able to reach a minimum efficient scale of production and its family nature often translates into few skills and free time to adopt new production processes and marketing strategies.

  Such fragmentation in the land also makes it difficult for farmers to either expand or leave agriculture. As in many OECD countries, fragmentation makes it difficult to assemble contiguous parcels of land that are required for modern farm operations and the value of land falls because it is less profitable to operate, locking some families in a circle of poverty (OECD, 2018[25]).
- **Lack of basic goods and services for agricultural production**. In Colombia, 70% of farms do not use machines for their production process, following a trend in which the smaller the size of the production units, the greater the labour intensity (Hamann et al., 2019[23]; Berry, 2017[24]). Moreover, Colombia's production of fertilisers does not meet internal demand, which requires importing close to 70% of its total fertiliser consumption, especially urea, ammonium phosphate (DAP), mono ammonium phosphate (MAP) and potassium chloride. The cost of fertilisers can represent between 20% (e.g. for bananas, Panela cane) to about 30% (e.g. maize) of the total cost of production, particularly affecting small farmers (OECD, 2015[18]).
- Other factors include lack of information when choosing the right crops for the land, inefficient fertiliser use and overuse of pesticides.

Factors related to overall rural conditions include:

- **Problems with basic enabling factors for rural development**, including lack of infrastructure such as roads, aqueducts, sewerage and mills, and low skills and education attainment with difficulties in access to finance and insurance (Chapter 2).
- **Informal access and high concentration of land**. There is an important share of landowners without legal titles, which leads to uncertainties and acts as a barrier to farmers accessing capital (OECD, 2021[14]). Moreover, the unequal distribution of land leads to uneconomic fractioning and an unproductive concentration of land (OECD, 2015[18]).
- **Internal conflict** has dispossessed people of their land and created uncertainty for investment. Based on analysis of 852 units of agricultural production (UPAs) (2007[26]), López and González estimate that the elimination of political violence (armed groups, displacement) would contribute to an average increase of 6% in agricultural productivity.

These issues also prevent greater value-added in forward and backward linkages in agriculture and thus the creation of stronger rural value chains. In terms of backward linkages, agriculture production in Colombia relies heavily on imports of intermediate inputs, mainly wheat and grains for animal consumption and pesticides. In fact, the share of agricultural imports in Colombia (12.4%) is higher than the OECD average (6.3%) and the selection of Latin American countries (7.1%). This relatively high dependency in agriculture reveals an underdeveloped internal value chain for agriculture that increase the sector's vulnerability to international price shocks.

When it comes to forward linkages, the capacity of the agricultural sector to add greater value to agricultural production has important scope for improvement. According to Parra-Peña, Puyana and Yepes (2021[22]), the Colombian agricultural sector generates USD 0.67 on value transformed for each USD of agricultural primary production (measured through the transformation ratio)[2], which is above transformation ratios in Brazil (USD 0.53) or Peru (0.55), but far lower countries like Chile (1.11) or Mexico (1.18).

Such medium-low capacity to add value in agriculture reflects a greater share of export of primary products for consumption (37% over total exports), in contrast with processed products for consumption (17%) or industry (11%). Again, this share of primary export is above the share in other Latin American countries like Mexico (47% of export from processed goods for consumption), Argentina (39% processed goods for industry). Colombia's agro-food exports are almost equally split between those destined for final consumption (54%) and those sold as intermediate inputs (46%) for use in manufacturing.

These challenges are not new for the Colombian government and MADR has made headway in programmes used to solve those challenges specifically related to the agriculture sector, in line with OECD recommendations to enhance productivity in agriculture in Colombia (Box 3.4). In particular, MADR has made important progress in addressing the provision of goods and services for the agricultural sector, including technological transfer (Recommendation 1.a) and strengthening the sanitary and phytosanitary systems (Recommendation 4.b) (2015[18]).

The government has also heled mitigate the vulnerability from the high reliance on imports of agricultural inputs with an Andean Price Band System, which aims to stabilise import prices for 13 commodities including a number of grains for animals. Subsidies are also provided for the purchase of seeds and fertilisers, and specific programmes of preferential interest rates are helping farmers access credit and insurance (OECD, 2021[14]).

Box 3.4. OECD recommendations to improve productivity in the agricultural sector of Colombia

Productivity growth is a prerequisite for sustained competitiveness and integration into international agro-food markets and is thus critical for agricultural development. To this end, the OECD (2015[18]) proposed 4 main recommendations with 11 actions:

1. Support for agriculture should focus on long-term structural reform.
    a. Refocus policy efforts on strategic investments, which are currently being under-provided, such as public goods for the agricultural sector (e.g. technology transfer or animal and plant health).
    b. Increase investment in irrigation and improve regulatory oversight over water supply, usage and storage. Increase investment in transport infrastructure.
    c. Stabilise the country and promote rural development using an inclusive land access policy in Colombia.
    d. Upgrade the cadastre system. Accelerate the registration of land rights.
    e. Strengthen and improve the land tax system by assessing the current land valuation system and procedures for land transfer and acquisition.
2. Improve the institutional framework of agricultural policy.
    a. Reform and strengthen the institutional framework for designing and implementing agricultural policies.
    b. Strengthen the evaluation and monitoring stages of the policy cycle. Improve the evidence base for policy decisions.
    c. Strengthen institutional co-ordination between MADR and other relevant ministries implementing programmes in rural areas, for example the Ministry of Environment.
3. Reinforce the Agricultural Innovation System.
    a. Reassess the framework for public and private investment in agricultural innovation. A longer-term perspective should be adopted, including longer-term funding arrangements.
4. Further integration into international agro-food markets.

a. Assess the effectiveness of the Andean Price Band System applied to key agricultural products.
b. Strengthen the sanitary and phytosanitary (SPS) system to support increased export competitiveness.

Source: OECD (2015[18]), *OECD Review of Agricultural Policies: Colombia 2015*, https://doi.org/10.1787/9789264227644-en.

The government issued a national policy to improve agricultural productivity and competitiveness (CONPES Document 4098 - Policy to Promote Agricultural Competitiveness) (DNP, 2022[27]), which identifies the priority actions that complement existing productive programmes for farmers, strengthening the agricultural policy in line with OECD recommendations (2015[18]). This national policy provides a solid diagnosis of the challenges in rural economies, with a concrete roadmap to enhance the productivity of the agricultural sector. To this end, most of the actions recommended in this policy are centred on improving information for public policy, promoting food value chains that involve vulnerable groups and strengthening the agricultural innovation ecosystem through better infrastructure and easing financial access.

Accelerating agricultural innovation with a broader approach

An important focus of the forthcoming national policy for agricultural productivity is strengthening the National Agricultural Innovation System. This system is a relevant tool to increase resilience and income for farmers. Agricultural innovation is a seminal strategy to increase effectiveness, competitiveness, resilience to shocks or environmental sustainability (OECD, 2015[18]).

According to the 2019 National Agricultural Survey (ENA), only 5.2% out of 2.1 million UPAs surveyed have incorporated any kind of innovation (such as production, marketing or administration innovation) in their agricultural production and only 1.6% indicated that they carried out or initiated activities for some change or improvement. Most of the UPAs implemented innovation focused on the preparation and management of soil (19%). It is worth noting that the low innovation rate of small farmers does not reflect their openness to innovation (Agrosavia, 2020[28]). In fact, the smallest UPAs (less than 5 hectares) represent the largest group of units (40%) that introduced some type of innovation in their activity (Parra-Peña, Puyana and Yepes, 2021[17])

This low adoption rate of agricultural innovation can be explained by relatively low investment in agricultural research and development (R&D) and slow implementation of comprehensive policies to create an agricultural innovation system that goes beyond training for cultivation.

Between 2000 and 2018, the share of national R&D and innovation investment in the agricultural sector decreased from 36% to 12%. Moreover, despite the resources available in the Science and Technology (S&T) Fund of the General System of Royalties (SGR) and the resources of the Parafiscal Development Funds that are managed by unions, the share of public investment in R&D as a share of agricultural GDP (1.01% in average in 2016-19) is still below the 2015 level (1.75%).

In 2017, Colombia created a comprehensive system for agriculture innovation, the National Agricultural Innovation System (SNIA) (Law 1876), to co-ordinate efforts for agricultural innovation through the implementation of three subsystems: i) innovation and technological development; ii) public agricultural extension; and iii) education and training. The Public Agricultural Extension Service (SPEA) launched in 2018 (Agricultural Technical Assistance's new programme) goes beyond traditional technical training for cultivation, to include training to improve farmers' knowledge of markets, associativity and information technologies, among others.

Yet, Law 1876 of 2017 has not been fully established. By 2021, the Agricultural Extension Fund Operations Manual and the SPEA monitoring and evaluation system were still missing, which prevented the Agricultural Extension Fund from being fully operational, limiting the resources available to subsidise the

fee for the provision of the programme. Moreover, the SPEA has had a slow implementation that has limited service coverage, as, by 2021, it has only served 41.8% of the goal of 550 000 users for the 2018-21 period.

The Colombian government should put innovation at the centre of the agenda, which comes with the implementation of the forthcoming national policy for agricultural productivity, in particular rebalancing the sectoral budget towards greater investment in innovation and implementing the missing documents (e.g. Agricultural Extension Fund Operations Manual) to make the National Agricultural Innovation System fully operational.

This innovation system could also find synergies with existing MADR programmes focused on entrepreneurship in non-agricultural activities. Entrepreneurial Countryside (*Campo Emprende*) could benefit from training to improve farmers' knowledge of how to involve other rural inhabitants in the learning process and help create local value chains.

Unlocking rural innovation will benefit agriculture sector and the rural economy at large.

Enhancing agricultural innovation can not be seen in isolation from the rural innovation ecosystem. Innovation in rural economies needs greater participation of youth and women in high-value-added economic activities to ensure intergenerational renewal and a more dynamic rural economy. The use of technology to ease economic insertion can help involve all the rural population in the innovation system. For example, new technologies can help involve youth and women in agricultural activities that were traditionally seen as labour-force-intensive or male-dominated. In some OECD rural regions, automation of some repetitive task in primary activites (e.g. mining in the north of Sweden) or the use of techonolgy to monitor operation (e.g. drones to monitor crops) is opening new work possibilities for youth and women (OECD, 2020[11]).

Promoting innovation in rural context also needs to create role models and improve access and understanding of new technologies. Digital platforms to disseminate information of government programmes or create role models to inspire new generations have proven to be effective to insert young in rural economies. According to OECD work (2021[29]), a key action to support youth entrepreneurship, beyond addressing the finance gap that they face, is to improve the appeal of support initiatives by better capturing youth perspectives in the design of programmes. In Colombia, there is a good example of an influencer peasant family of YouTubers who share life in rural areas and have become role models, especially for youth and women (Box 3.5).

The government, in co-operation with the Ministry of Information and Communication Technologies (MinTIC), could gather rural digital communitation practices in a digital platform to display different life examples in rurality and promote entrepreneurship support programmes.

Box 3.5. Nubia and Children: The YouTuber peasant family

Nubia and Children is a digital project launched during COVID-19 lockdown, led by Nubia Rocío Gaona and her two children, Jaime Alejandro and Arley David in the rural municipality of Chipaque, Cundinamarca. The three created a YouTube channel to make visible the daily reality of the Colombian countryside and offer different tips to enable viewers to make everything from milk candies to vegetable gardens at home.

Nubia was a former full-time farmer who become a cleaner at the departmental school of Chipaque, once her farming business went bankrupt. Her son David, 15 years old at the time, had the idea of showcasing rural life on YouTube, after realising that there were no influencers covering rural matters.

They started to film with a conventional camera on their smallholding, where they keep a few animals and grow some vegetables.

Nubia and Children became a popular YouTube channel in Colombia with more than 800 000 subscribers. They also launched a website where they sell seeds and school kits. Nubia and Children were ranked one of the most outstanding YouTube channels in Latin America in 2020, according to the statistics portal for market data, Statista.

Source: Nubia e Hijos (2020[30]), *Familia Campesina decide volverse YouTuber*, https://www.youtube.com/channel/UCeUlkw2mOytSyH-7GerzeLQ; Distintas Latitudes (2021[31]), "Nubia e hijos: La familia colombiana, campesina y youtuber", https://distintaslatitudes.net/destacado/nubia-e-hijos-familia-youtube-colombia.

Increasing the income of farmers with off-farms activities

Agricultural policies in isolation will not sustainably improve the income and well-being of small farmers. While small farms could be viable, families relying solely on small farming are vulnerable to external shocks and suffer from highly uncertain and unreliable income. This is not unique to Colombia: in many OECD countries, small farms do not provide enough income for a proper living. In countries like Poland, 48% of farms reported annual sales that barely reached the annual income necessary to be above the annual poverty line (EUR 4 000) (OECD, 2018[25]).

The development process of Colombia and the modernisation of its agricultural sector will keep reducing the sectoral weight in the economy, as has occurred during structural transformation across many OECD countries (OECD, 2014[32]). The share of agriculture in the Colombian GDP has constantly declined in the last decades, from 8.3% in 2000 to 6.7% in 2019. Rural employment has also diversified in recent years. In 2015-21, the employment growth rate in sectors such as electricity, gas, water and waste management (9.3% annual average), professional and scientific activities (2.9%) and transport and storage (2.3%) was far above growth in agriculture (0.1% annual average) (DANE, 2022[33]). Other countries in Latin America and the Caribbean region have seen the same decline in agriculture, although the pace of Colombia's transformation has been slower than that of Brazil, Chile and Mexico, and slower than the average pace seen in OECD countries (OECD, 2015[18]).

Farmers who can complement their incomes with off-farm activities can better cope with external shocks that affect agriculture production and are more likely to meet the sustainable living standard. In the US, some of the counties that produce the greatest amount of agricultural output are not farming-dependent because a larger share of county output comes from another activity, such as manufacturing (Federal Reserve Bank of St. Louis, 2021[12]).

The vast majority of American farm households now earn more money from off-farm employment than they do from farming (Federal Reserve Bank of St. Louis, 2021[12]).

A seminal policy to support secondary sources for farmers is the improvement of access to markets and capital. Good access to urban centres is a cornerstone for farmers and their families to sell their products and also find new job opportunities in the eventuality that agricultural production does not provide enough income. Nevertheless, in Colombia, infrastructure network is still poorly developed (Chapter 4), with many rural inhabitants still locked in terms of road infrastructure and deficient fluvial traport solutions.

Inter-sectoral projects can also help unlock new sources of income for farmers. The agricultural sector in Colombia has been traditional linked with manufacturing (food processing) and the services sector (restaurants). Some products have strong forward linkages with the manufacturing sector. For example, the added value of transforming palm is almost seven times the value of primary production, with transformation that includes seed meals, oils, fats, soaps and perfumes or preparations for animal feed (Parra-Peña, Puyana and Yepes, 2021[17]).

Improved links with Colombia's industrial sector remains an unexploited opportunity. The country benefits from industrial activity that is distributed across its different regions (Chapter 2). Some industries have the capacity to support backward linkages of the agricultural sector and could be better integrated to develop machinery adapted for Colombian conditions (mountainous land) and purchasing power. Risaralda, a region whose capital is a small/medium-sized city, is among the top coffee producers in the country and also hosts important industrial companies, building busses for Bogotá's Public Transit system or parts for the Black Hawk helicopter. However, most machines to produce and transform coffee are imported, e.g. coffee threshers. Greater regional alliances to address production needs in agriculture should be a key pillar of rural policy in Colombia. In some regions, such policy strategy could rely on the chamber of commerce and other organisations gathering innovative activities (e.g. Centre for Innovation and Technological Development of Manufacturing and Metalworking in Risaralda).

Better linking agriculture and tourism

Closer ties between tourism and agricultural policies can revitalise the traditional process of agriculture, promote improvements in quality and offer new sources of income for farmers. Tourists visiting rural regions bring demand closer to producers by buying directly from farmers' markets or making purchases in the region. Tourism is also a means to provide consumer information to producers to help change or improve the quality process.

Colombia's renowned tradition of coffee production has attracted tourists to regions like Huila, Quindío or Risaralda to experience coffee gathering and processing. Some tourists stay on coffee farms, thus supporting food production and traditional gastronomy. The dissemination of Colombian gastronomic culture is directly related to the recognition of traditional cultures; this accumulated culinary tradition can help position cultural identity (Mora, 2018[34]).

Linkages between traditional agriculture production and tourism could be extended to other products, beyond coffee, such as rum or exotic fruit. Better mapping traditional agricultural processes with clear information on destinations can help attract tourists to new locations and add value to traditional agricultural products. Hungary's mapping exercise can be a good guide for Colombia (Box 3.6). Tourist experiences linked to agriculture could be further exploited by setting clear routes and guides.

Closer synergies can also allow tourism support sustainable agricultural practices. Tourism plays a key part in food consumption. For example, some OECD countries have increased partnerships with hotels to influence sustainable food production through regional or organic food purchasing policies and to advance in practices of food waste minimisation (Italy and Spain).

To realise this potential, the Ministry of Tourism, Industry and Trade has set a specific strategy to promote agro-tourism clusters and value chains by integrating existing rural, agricultural and environmental development projects. This approach is welcome and should require formal collaboration with MADR to set common goals and policy strategies on this matter. Some OECD countries have adopted bilateral agreements between tourism and agriculture institutions (Greece), while others have set cross-ministerial budget allocations (Japan) (OECD, 2020[35]).

Box 3.6. Culinary tourism in Hungary

The destination-based approach of Hungary's National Tourism Development Strategy 2030, is adopted in a current project entitled The Taste Map of Hungary. With the use of dynamic food maps, tourists are able to filter and search for local foods and produce in a given region.

The map helps to find unique and traditional tastes in the regions, therefore driving tourism and supporting local supply chains. Tourism and culinary experiences have been an integral part of the Swedish food strategy since 2017. The government has also identified culinary tourism as a priority for

action within the EU Rural Development Programme, which has dedicated SEK 40 million to develop tourism in rural areas and SEK 60 million to develop culinary tourism in rural areas. The partly government-owned marketing company Visit Sweden AB runs programmes with Swedish regions to develop the culinary offer within destinations and develop marketing.

Source: OECD (2020[35]), *OECD Tourism Trends and Policies 2020*, https://doi.org/10.1787/6b47b985-en.

Enhancing bioenergy strategies to promote circular process in agriculture

Bioenergy can play a strategic role in meeting multiple goals in Colombia, from cleaner energy production (e.g. biofuels or combustion for electricity) and improving access to affordable, reliable energy supply to providing a new source of income to agricultural companies. Colombia benefits from substantial potential bioenergy feedstock, e.g. palm, sugar, biomass from agriculture or organic waste (OECD, 2022[36]).

On average, around 178 million tonnes of organic waste are produced each year in Colombia from agricultural activities (41%), livestock (58%) and the residential sector (<1%) (OECD, 2022[36]). While some of this waste goes through a compositing process to increase its value as fertiliser, the majority is reintegrated into crops in a non-technical way, which has been linked with decreasing land productivity (Government of Colombia, 2019[37]). The Colombian government has estimated that agricultural biomass residues, via direct combustion and/or anaerobic digestion, could be converted to a fifth of Colombia's total energy supply (around 8 mega tonnes of oil equivalent of energy) (UPME, 2011[38])

Most agricultural residue currently used for bioenergy in Colombia comes from palm oil and sugar crops. These are used for the production of biodiesel and bioethanol. Manuelita and Ingenio Risaralda S.A. are positive examples of companies cogenerating electricity from sugarcane bagasse and palm fibre and selling electricity surplus to the grid. This type of cogeneration allows the company to withstand shocks from the shortage of energy supply, reduce energy prices, improve the carbon footprint of the production and obtain income.

However, there are a number of unexploited opportunities for bioenergy production in canola or sunflower, forestry residues and developing value chains with new production processes and products (Figure 3.1). Unlocking opportunities from bioenergy requires further policy actions to encourage investment and market conditions for clean energy generation from waste and residues.

To this end, the OECD (2022[36]) identified a number of policy actions that should be put in place by the Colombian government (Box 3.7). Of particular importance for rural policy is the need to improve institutional co-ordination (e.g. between MADR and the Ministry of Mining and Energy) to facilitate bioenergy projects in agriculture, particularly in small farmers' associations, as these projects can be difficult in nature given the complex chain of sourcing, sorting and treatment of waste. Moreover, support for innovation and local technical capacity is required to enable solutions that are suited to the Colombian context. For example, training farmers to use biodigestion to convert organic waste from farms into bioenergy and biofertilisers.

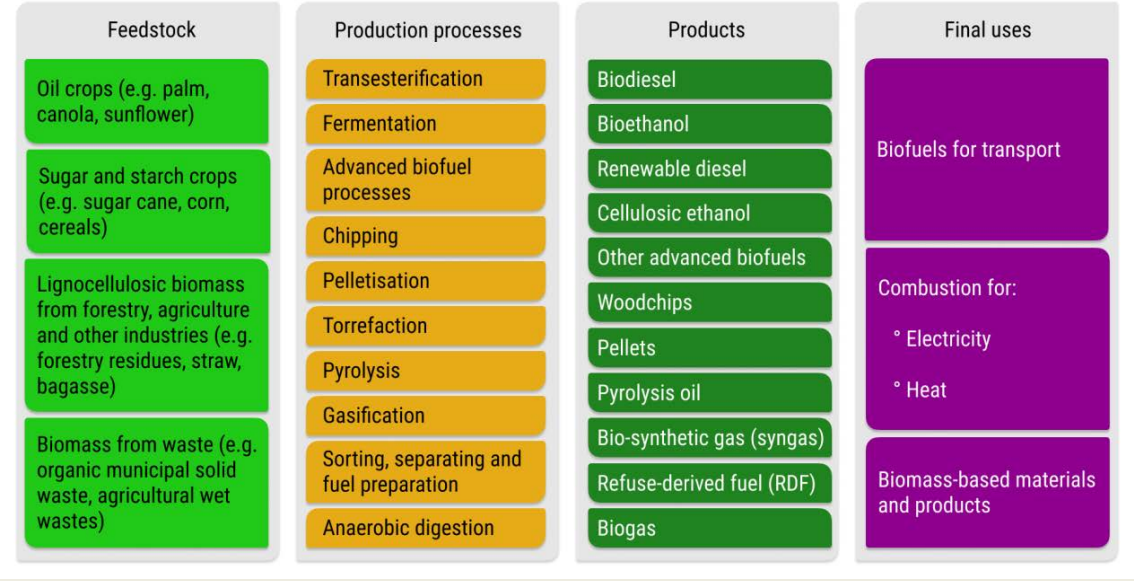
Box 3.7. OECD recommendations to unlock bioenergy potential in Colombia

In 2022, the OECD conducted a study to support Colombia's efforts to achieve its clean energy ambitions through measures that can strengthen opportunities for bioenergy development. While the government has set forth a number of important policy strategies to realise its clean energy ambitions (e.g. 2018 Green Growth Policy and 2021 Energy Transition Policy), the country currently only uses a limited capacity of its feedstock to produce energy but there is a large array of options that can be further explored (Figure 3.1).

Actions to encourage clean energy generation from waste and residues in Colombia include:

- Establishing clear targets for bioenergy capacity additions in energy and electricity market plans.
- Improving institutional co-ordination to ensure the opportunities for bioenergy development are reflected across related public and economic policies. This is particularly relevant for rural economies is the co-ordination between MADR and the Ministry of Mining and Energy.
- Strengthening market signals such as progressive increases in landfill fees paid by waste producers, which remain low compared to other OECD countries, to improve the economics of sorting, treatment and recovery of waste for energy production.
- Providing the needed incentive for businesses and industry to seek alternative pathways to waste disposal.
- Working with financial stakeholders, building upon existing funds such as national development bank Findeter financing for local and municipal infrastructure projects, to implement targeted financial measures that increase the flows of capital to bioenergy projects.
- Training and capacity building, alongside public support for new and innovative technologies and business models, to develop a robust pipeline of bioenergy solutions adapted to the Colombian context. Stakeholders like Colombia's National Centre for Cleaner Production and Environmental Technology can build awareness in the market and enable technical capacity.

Figure 3.1. Potential products and uses of bioenergy resources



Source: OECD (2022[36]), *Enabling Conditions for Bioenergy Finance and Investment in Colombia*, https://doi.org/10.1787/20f760d6-en.

Tourism to help preserve the environment, empower minorities and boost traditional economic activities

The tourism sector is itself an increasingly important source of development for rural communities in Colombia. Currently, it contributes 2% to Colombia's GDP and has become the primary service export in Colombia and the second overall export behind the oil industry, generating 52% of foreign exchange (OECD, 2020[35]). In fact, the income from foreign exchange for tourism has exceeded that from coffee and any other agricultural/livestock product (Garavito, Rozo and Mojica, 2019[39]).

The country's peace agreement opened up once-inaccessible parts of the country and improved the security perception: tourism has been one of the activities that has benefitted the most from this in the post-conflict era (Esteban and Bonilla, 2017[40]). The tourism sector in Colombia experiences exponential

growth, with a record number of 4.5 million inbound visitors (3% annual growth) in 2019, just before the COVID-19 pandemic. This sector employs about 9% of jobs in Colombia (around 2 million jobs in 2018) (OECD, 2020[35]). While not all of these workers are located in rural regions, the important biodiversity and number of nature destinations in the country make tourism an increasingly important economic activity for the rural economy.

Tourism can fulfil multiple goals to increase rural well-being in Colombia. It can provide alternative income and job opportunities for rural communities. Tourism demands services and goods from a variety of economic sectors, including transport, retail, housing and agriculture. Most of the jobs provided by tourism in Colombia are concentrated in passenger transport supporting services (39% of people employed in tourism in 2018), followed by the food and beverage serving industry (36%) (OECD, 2020[35]). Moreover, tourism can be an engine to advance the implementation of the peace process and offer an alternative source of living to get people out of illegal businesses in the countryside. Tourism in a country rich in natural resources can also help preserve biodiversity and environmental ecosystems.

However, the sector, like many activities in rural areas, faces major challenges in terms of security and the provision of basic services and infrastructure. Security, again, is probably the major issue for tourism attraction. According to the World Economic Forum (WEF) Travel and Tourism Competitiveness Index, Colombia ranked last among the 136 countries analysed in the dimension of security (Ministry of Commerce, Industry and Tourism, 2019[41]). Many destinations where security has improved substantially suffer from the general perception of insecurity that comes from years of high levels of internal conflict and illegal traffic. In fact, a survey of 206 potential European tourists conducted in 2020 revealed that Colombia as a destination is perceived as more dangerous by potential tourists than by actual tourists who have visited it and perceive it as much safer and more attractive (Antošová, Lima Santos and Stradová, 2020[42]).

Other pressing challenges for tourism attraction in Colombian rural areas include deficient accessibility (ground and port infrastructure) and quality of public services in touristic destinations (healthcare, water) along with the slow adoption of digitalisation. Likewise, factors such as high labour informality, low worker skills (e.g. English language) in the provision of tourism service along with environmentally unsustainable tourism practices diminish the capacity of tourism to share benefits with the population and to have a positive impact on the environment.

To address the main bottlenecks in the tourism sector in the medium and long terms, the Tourism Sector Plan 2018-22 “Tourism: The purpose that unites us” defined strategies to improve Colombia’s competitiveness as a tourist destination through major strategic lines that include: the generation of institutional conditions for the tourism sector, better infrastructure and connectivity and strengthening human capital, among others (Ministry of Commerce, Industry and Tourism, 2019[41]). The ministry relies on the National Tourism Council, representing 13 different ministries and other agencies to implement this plan and ensure a whole-of-government approach to tourism development.

Some of the flagship strategies to support tourism include the certification programme for tourism service providers and destinations in order to create a culture of excellence in tourism operations and a focus to ensure security and safety for the users and customers of tourism services. The latter programme is done through a join collaboration with the Ministry of Defence to co-ordinate the Tourism Police, a specialised body that ensures and supervises tourism activity in the public and private sectors.

Tourism is an inter-sectoral activity that can mobilise different development agendas in rural communities, including environmental protection, improving the quality of food production and off-farm income for farmers as well as the valorising culture of traditional communities.

Cultural tourism can revitalise rural traditions

Community-based tourism is also a relevant tool to ensure rural communities and local ecosystems benefit from this growing activity (OECD, 2020[35]). The community-based tourism not only empowers communities

and helps preserve natural resources but also offers a unique experience to tourists. Examples in Colombia have also shown that this tourism also helps communities play a greater role in the planning and management of economic resources (Ministry of Commerce, Industry and Tourism, 2018[43]).

The multicultural richness of Colombia makes this type of tourism an important tool to spread income throughout different rural communities, valorise traditions and greater involve Indigenous and Afro-Colombian populations in regional development dynamics. The Ministry of Commerce, Industry and Tourism has created policy guidelines for the development of community tourism in Colombia (2012) and, since 2017, has dedicated a fund to benefit community tourism projects, focusing mainly on an Indigenous and vulnerable population.

The fund focuses initially on the capacitation of communities to apply projects. Examples of projects include the design of the touristic product for the Indigenous community Embera in Nuqui, Choco or the official agreement to create touristic projects in Afro-Colombian communities. The policy proposed the creation of a network of community-based tourism to co-ordinate the different ongoing initiatives around the country and disseminate information to share good practices and improve marketing.

This policy and its projects could benefit from other OECD experiences to ensure local communities are the ones directly harnessing the benefits of tourism. Some tourists rely on travel operators to reach remote destinations. The policy can build the capacities to ensure communities can take a lead role in organising and managing tourism in the regions. Experiences in other OECD countries can guide Colombia's ethno and community-based tourism policy to ensure that funding promotes both the destination and the export products of local communities (Canada) or can help the country better embed Indigenous and local communities' views in the national tourism promotion strategy (Finland) (Box 3.8).

Box 3.8. OECD approach to Indigenous tourism: Canada and Finland

The Canadian Experiences Fund is helping Indigenous peoples present their histories, traditional stories, creative arts and contemporary values to the world while creating new economic opportunities in their communities. It supports the growth of Indigenous tourism in Canada and addresses the demand for market development and export-ready Indigenous tourism products.

In Finland, the Principles for Responsible and Ethically Sustainable Sámi Tourism were adopted by the Plenum of the Sámi Parliament in 2018. These principles recognise the Sámi as having the right to decide by whom, what and how the varying elements of their culture are used and portrayed in tourism.

Source: OECD (2019[44]), *Linking Indigenous Communities with Regional Development*, https://doi.org/10.1787/3203c082-en.

Sustainable tourism can promote growth while conserving natural ecosystems in rural areas

As a reaction to the COVID-19 pandemic, the Colombian government has put in place a recovery strategy for tourism with environmental sustainability at the core of decision-making and created the Sustainable Tourism Policy "Together with Nature". With the adoption of this policy, Colombia became 1 of the first 12 countries in the world with a public policy framework for sustainability in tourism (OECD, 2021[45]).

In the post-pandemic scenario, Colombia could benefit from a reinvigorated touristic demand that values alternative destinations with an environmental appeal (OECD, 2021[45]). Colombia's biodiversity and variety of ecosystems (high-elevation mountains, dry forest, *páramo* and coastal habitats) put the country in a good position for sustainable tourism, which would be mainly located in rural regions.

Ecotourism can help finance the protection and management of protected areas and biological diversity. This type of tourism represents an alternative income source that tends to reach remote communities and

traditionally less touristic regions in the country. For example, niche tourism markets, such as nature watching (bird or whale watching), can be further promoted and organised in the country. With over 1 940 avian species, Colombia has the highest diversity of bird species in the world, which makes it an attractive destination for a growing tourism market of birdwatching, e.g. more than 46 million bird-watchers in the US (Ocampo-Peñuela and Winton, 2017[46]; Maldonado et al., 2017[47]) (Box 3.9).

However, brining tourists to nature-rich regions – such as Cauca, the region with the greatest biodiversity of birds in the country – requires security and well-developed accessibility. This is especially relevant for niche products like birdwatching in which tourists tend to be relatively wealthy and require organised journeys (Maldonado et al., 2017[47]). Tapping into these opportunities requires an integrated policy approach that goes beyond tourism to improve security and local capacity to provide quality services.

Box 3.9. Potential of birdwatching tourism for rural areas in Colombia

Colombia is the country with the greatest variety of birds on Earth, with over 1 940 species, including more than 200 migratory and 80 endemic species. Known for its very diverse bird population, Colombia's variety of ecosystems offers an array of tropical avifauna, including flycatchers, hummingbirds, tanagers, toucans and more.

The potential revenues that birdwatching tourism could bring to post-conflict Colombian communities are promising. The average birdwatcher is relatively wealthy and willing to pay a premium to see Colombian birds: USD 310 per person per day (Maldonado et al., 2017[47]). The National Audubon Society estimates that birdwatching can generate USD 47 million annually and create up to 7 500 new jobs in Colombia over the next decade (Ocampo-Peñuela and Winton, 2017[46]; Audubon Society, 2017[48]). The country has already four recognised birding trials and international-funded projects, not least the Audubon and the United States Agency for International Development (USAID) Northern Colombia Birding project that has trained more than 40 locals to be bird guides, including a group of Wayuus, a native ethnic group that resides in the Guajira Peninsula in northern Colombia.

Source: Ocampo-Peñuela, N. and R. Winton (2017[46]), "Economic and conservation potential of bird-watching tourism in postconflict Colombia", https://doi.org/10.1177/1940082917733862; Audubon Society (2017[48]), *Birding and Ecotourism in Colombia*, accessed on June 2022 https://www.audubon.org/.

Mobilising renewable energy sources to create new job opportunities

Colombia has an important renewable energy potential, including large, solar and wind resources. Investment in these clean energy solutions offers the opportunity to boost the reliability and affordability of energy supply, whilst decarbonising the country's energy mix and creating new income sources for rural communities.

These favourable conditions for wind and solar energy have remained mostly untapped. Potential from wind energy generation in the department of La Guajira in the north of Colombia is estimated at 18 gigawatts (GW) (Mordor Intelligence, 2020[49]), more than all currently installed electricity generation capacity in Colombia. Furthermore, average annual wind speeds in certain locations off-shore of La Guajira are as high as 11 metres per second (IDEAM, 2020[50])making Colombia 1 of only 2 regions in all of Latin America to reach these high levels, at more than double the minimum wind speed needed for utility-scale installations (Norton Rose Fulbright, 2016[51])

Potential for large-scale solar generation is also particularly strong in the Orinoco region in the east and San Andrés Island in the Caribbean (IDEAM, 2020[52]), where average radiation reaches as high as

6.0 kWh/m² per day, much higher than countries considered a big player in a solar generation like Spain (on average around 3-3.5 kWh/m² per day in solar irradiance) (World Bank, 2020[53]; IRENA, 2020[54]).

This type of renewable energy project is not going to create many jobs but can bring some additional income and employment opportunities in rural areas. Some of the benefits that rural communities can obtain from renewable energy projects include:

- The **greater tax base in hosting communities can be invested in improving service delivery**, as was the case in Abruzzo, Italy, or Scotland, United Kingdom (OECD, 2012[55]).
- **Extra income for land owners and land-based activities**. For example, farmers and forest owners who integrate renewable energy production into their activities have diversified and stabilised their income sources (OECD, 2012[55]).
- **New indirect jobs**. While the number of new jobs created by renewable energy projects is limited (mainly in operating and maintaining equipment), rural communities can implement strategies to benefit from indirect jobs arising along the renewable energy supply chain (construction, manufacturing and specialised services). This was the case in Extremadura, Spain, where the newest manufacturing jobs were created in firms producing metal frameworks to support solar energy installations (OECD, 2012[55]).
- **Deliver affordable and clean energy**. Some Colombian regions, mainly rural ones, still rely heavily on thermal power generation using fossil fuels. For example, Córdoba, La Guajira and Norte de Santander in the northern part of the country relied exclusively on coal for electricity generation in 2017.

Making a positive connection between renewable energy development and local economic growth in Colombia will require more coherent strategies to embed energy strategies in the local economic development strategy. It is especially relevant to ensure these projects reflect local needs and integrate rural economies within larger supply chains. As these projects use significant areas of land, the government should evaluate with local communities the adverse effects of renewable energy projects on current or potential economic activities, including agriculture and tourism.

Making the most of mining to attain climate goals and improve rural well-being

Meeting the Paris Agreement goals will require a massive deployment of clean energy technologies, whose production will in turn rely on important amounts of critical minerals such as copper, lithium, nickel, cobalt and rare earth elements (IEA, 2021[56]). Clean energy technologies require more minerals than fossil fuel-based counterparts. For example, a typical electric car requires six times more minerals than a conventional car (e.g. lithium, cobalt and manganese for the longevity of its battery) and an onshore wind plant requires eight times as many minerals as a gas-fired plant of the same capacity (IEA, 2020[57]).

This led to the potential demand for some minerals for the clean energy transition that is in many cases greater than the current production levels. Therefore, many OECD governments have defined access to minerals and metals as a strategic security priority for sustained development, e.g. the European Green Deal and the Canada-US joint action plan to increase autonomy in critical minerals (Sanabria, Forthcoming[58]).

Colombia has a geological potential that could leverage the increasing mineral demand to support the global energy transition and unlock new job opportunities for rural economies. Currently, the mining sector has a presence in 250 municipalities and represents 12% of the foreign investment into the country and 27% of national exports. As in other OECD countries, if well-managed, this sector can contribute to rural development beyond the economic dimension, for example through infrastructure development, social investments, innovation and the creation of local value chains (OECD, 2017[59]).

Colombia has a high potential for large-scale, such as nickel, and smaller-scale mining projects, such as gold, platinum, emerald, limestone, copper and manganese ores, and gypsum, among others. It has still untapped deposits of nickel, the most important component of the stainless steel industry, which is already one of the top exported minerals in Colombia (together with coal and gold). Furthermore, the country has deposits of rare or strategic minerals in areas that have never been explored due to the conflict (Ramos, 2021[60]), including coltan deposits, a mineral widely used for the electrical components industry worldwide.

However, the mining sector faces entrenched challenges in information about the mineral potential, infrastructure, illegal mining and low development of value chains, e.g. gold (Ministry of Mines and Energy, 2019[61]). For example, there is scope to enhance information about critical minerals required for green technologies and other minerals like copper, in which there are indicative reserves but only one project in the country. Moreover, the country has an increasing issue with the license to operate, with growing reticence in some communities towards mining ventures.

There is also a pressing challenge to support coal communities in the north and centre of the country to attain new economic opportunities in the face of the coal mining transition. This energy mineral is present mainly in regions such as La Guajira and Cesar basin and the regions of Boyacá and Cundinamarca. However, global prices have battered coal and demand is set to end in the medium term due to commitments to reach global climate goals. Early just transition initiatives to leverage the know-how of coal workers and help them shift into new jobs should be a priority for these communities. Experiences in other OECD countries (e.g. Finland, Poland) have shown that close work with mining companies to explore new business alternatives focuses on leveraging workers' know-how, either to explore another type of mining or enter into mining-related industrial activities, as well as long-term plans with finance can lead to diversification of mining communities (OECD, 2019[62]).

Mining outcomes can be shaped by policy to ensure environmental sustainability and link with local expectations. The Colombian government can unlock mining potential and ensure environmentally sustainable practices with policies that first ensure well-being of people. The government should focus on a mining policy centred on improving well-being of host communities and decarbonising mining value chains. It can include incentivising mining electrification with renewable sources (e.g. as in Western Australia) and mining automation (e.g. Norrbotten in Sweden) to reduce the mining carbon footprint and enhance female and youth participation in the mining workforce (Sanabria, Forthcoming[58]).

Moreover, the country needs a co-ordinated policy to enhance the benefit-sharing of mining projects and involve local communities, including Indigenous peoples. To this, Colombia can learn from other countries that have promoted Indigenous business participation in energy projects (e.g. in British Columbia, Canada) or created regional centres for excellence to build capacity and connect Indigenous peoples with local business programmes (Ontario, Canada) (Sanabria, Forthcoming[58]).

An incremental strategy to develop a comprehensive national rural policy in Colombia

Mobilising the different growth opportunities across different rural regions in Colombia requires an integrated approach that can address the structural challenges while unlocking synergies among economics activities. Colombia already has the basis for a comprehensive policy framework for rural development with the Integrated Rural Reform (IRR) that emerged from the peace agreement. This reform has led to the creation of a number of national plans with a focus to provide basic goods and services in rural areas as well as instruments for placed-based implementation like the Development Programs with a Territorial Approach (PDETs), which helps to identify local needs. In addition, there are a number of sectoral policies to support economic diversification in rural economies, including tourism, innovative agriculture, bioenergy, renewable energy and mining. This suggests that Colombia has most of the components for a rural policy already in place.

The IRR, the basis for a national rural policy in Colombia

Because the peace agreement largely deals with addressing the complete development needs in those rural municipalities that were most directly affected by the decades-long armed insurrection, it is in effect a rural development policy. The peace agreement itself is a formal commitment to the people in those regions that it will make the necessary investments to improve rural well-being and contribute to the end of violence. A further reason to see the agreement as a significant policy innovation is that it commits the government by law to a 10-to-15-year process that will extend across multiple administrations. Moreover, progress in implementing the agreement is being directly monitored by external groups and there are multiple stages for formal evaluations of progress.

The peace agreement was mainly designed to end armed violence and has the structure of an integrated rural development approach that can be applied across the entire country. In particular, the IRR of the peace agreement is highly compatible with the philosophy of rural policy developed by the OECD. Certainly, the problems in the municipalities where conflict was more intense do not characterise all of rural Colombia. Yet, because conflict occurred across such a wide variety of rural regions, there are opportunities to use the implementation experiences from the PDET programme as guidance for neighbouring territories with similar geographies and development opportunities.

Leveraging this IRR to develop a comprehensive national rural policy needs greater integration with policies for the rural economy (e.g. tourism, sustainable mining) and an approach that moves away from the programmatic view to deal with polices for rural regions in Colombia's national policy framework (PND). While some current productive government programmes relieve short-term needs in rural communities, such sectoral actions will require coherent co-ordination to address cross-cutting rural challenges in order to deliver sustainable improvements in rural well-being. Beyond the design of this comprehensive rural policy and given Colombia's historic capacity for policy diagnosis, political commitment to the implementation of this policy as a priority in the development agenda is likely the most relevant action for greater well-being in rural Colombia (to be discussed in Chapter 6).

Beyond leveraging the IRR to develop a comprehensive national rural policy, political commitment and prioritisation with the implementation of this policy are a relevant action for Colombia's sustainable rural development.

Lessons from the OECD Rural Well-being Framework for Colombia

A comprehensive rural policy for Colombia should therefore prioritise actions on those cross-cutting enabling factors for rural development to ensure sustainable growth of rural regions, peace and national development. These priorities are listed below. The next three chapters of this review will further analyse these factors and propose policy actions to address them.

- **Infrastructure development.** Despite progress, infrastructure is still insufficient in quality and quantity to provide rural communities access to markets and services and help diversify and improve the resilience of rural economies (Chapter 2). Today, there is an opportunity to palliate the lack of connectivity by developing communication infrastructure in rural regions (Chapter 4).
- **Access to and quality education and healthcare**. Better well-being involves better access to public services like education and healthcare. Lack of education has prevented rural communities from accessing and adopting innovations and attaining a better quality of life (Chapter 4).
- **Informal land tenure**. Improving land formalisation and regularisation help reach multiple goals, including boosting land investment, allowing farmers to access finance, protecting the environment and improving social cohesion, e.g. between Indigenous communities and farmers (Chapter 5).

- **Lack of consolidated systems of rural information**. As described earlier in this chapter, the lack of interoperability among sectoral and rural information systems across MADR agencies diminishes the capacity of government programmes to reach the right beneficiaries, adapt to local conditions and conduct development plans.
- **Low institutional capacity** in rural regions has made difficult the provision of security and justice as well as the enforcement of regulations and co-ordination of policy implementation at the local level (Chapter 6).
- **Security and accountability** are a transversal problem for development in Colombia and likely the more complex issue. Addressing illegal activities and violence against social leaders and civic groups is the first building block for development in the country, whose security approach needs to be centred on protecting people in the country, regardless of age, ethnicity and geographic location, while encouraging and safeguarding civil society to denounce corruption.

The development of this national rural policy in Colombia can take stock from the OECD Rural Well-being Policy Framework and the supporting OECD Principles on Rural Policy adopted by OECD member countries to increase prosperity and improve the living standards of their citizens in rural areas. This framework places the well-being of citizens at the forefront of its objective, recognising the diversity of rural regions and the need for forward-looking approaches to improve communities' resilience and anticipatory capacity to any future shock (e.g. climate change, digitalisation, demographic change) (Box 3.10). The framework calls for a multi-dimensional rural policy approach:

- **Policy objectives should embrace economic, social and environmental objectives**. Transition from a predominate focus on economic dimension (e.g. productivity and income) to encompass a broader concept of well-being that includes environmental and social dimensions. For Colombia, this transition is still in progress as most of the rural programmes still very much focus on productivity, particularly agricultural ones.
- **Policy needs to recognise different types of rural regions**. A policy approach that recognises the diversity of rurality requires sound definitions to identify the variety of rural places and their characteristics. In Colombia, policy still has a strong focus towards defining rural as a leftover of urban centres, without recognising different types of rural (Chapter 2).
- **Different stakeholders need to be involved**. Effective adoption and implementation of rural policies necessitate strong engagement of the private sector and civil society, as well as effective multilevel governance mechanisms to support collaboration between all levels of government. The framework call to recognise that rural people and businesses know their own needs best, which needs meaningful engagement and work with the private sector and civil society in the implementation of rural policy (Chapter 6).

Box 3.10. OECD Rural Well-Being Policy Framework

First developed over 40 years ago, the OECD's rural development framework has helped guide member countries' efforts to increase prosperity and improve the well-being of rural people and has continued to evolve, keeping pace with changing times and reflecting the organisation's latest thinking.

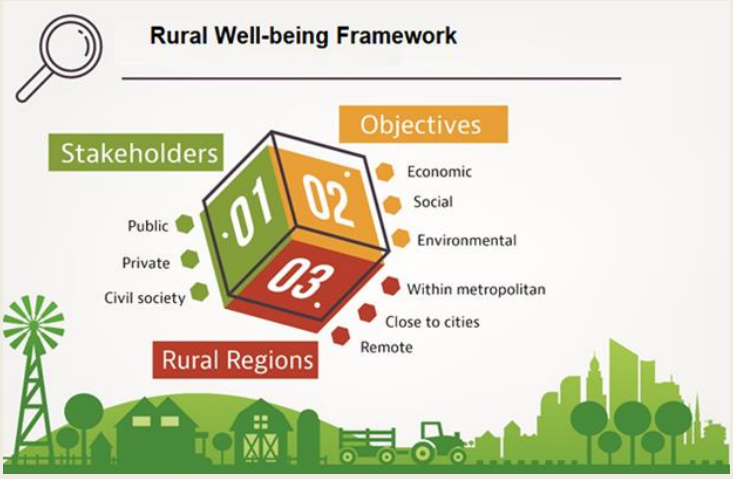
Rural *Well-being: Geography of Opportunities* (OECD, 2020[11]) is the latest iteration of the rural development framework. It extends and refines the OECD's earlier work, taking advantage of new analysis to reflect to a greater degree the diversity of rural places and the need for a more comprehensive policy approach.

The new framework's subtitle, "Geography of Opportunities", reflects the central finding that while rural places are not without their challenges, they are also unquestionably places of opportunity, particularly

with accelerated digitalisation. With well-designed rural policies that leverage local assets that are executed in co-ordination across levels of government and between the three key actors of government, the private sector and civil society, rural development policy can deliver more prosperous, connected and inclusive rural places that offer greater well-being.

In short, the Rural Well-being Framework shifts from a one-dimensional to a multi-dimensional view of rural policies.

Figure 3.2. OECD multi-dimensional view of rural policies



Source: OECD (2020[11]), *Rural Well-being: Geography of Opportunities*, https://doi.org/10.1787/d25cef80-en.

Using the OECD Principles for Rural Policy for Colombia to set the comprehensive rural policy

As in many policy areas, rural policy is cross-cutting by nature and involves a variety of governmental and non-governmental actors. Addressing the interdependencies of rural policy and attaining the sustainability of policy outcomes require the adoption of multilevel governance mechanisms with strong multi-stakeholder engagement. The OECD Principles for Rural Development serve as a tool to guide the implementation of rural policy (Box 3.11).

Box 3.11. The OECD Principles on Rural Policy

The Principles on Rural Policy crystallised over 20 years of the OECD's work on rural development and were developed through a comprehensive review process with OECD member countries and key stakeholders. They were adopted by the OECD Regional Development Policy Committee in March 2019.

They target: i) national ministries dealing with rural areas, rural policies and sustainable development, notably ministries responsible for regional development, in OECD member and partner countries; ii) subnational levels of government and stakeholders involved in or affected by rural policy (e.g. from civil society, the private sector, academia or financial institutions).

They cover 11 principles defined in 3 key axes:

Targeting policy actions for all types of rural areas

1. Maximise the potential of all rural areas.
2. Organise policies and governance at the relevant geographic scale.
3. Support interdependencies and co-operation between urban and rural areas.

Adopting integrated and effective strategies to build smart, sustainable and inclusive rural areas fit for the future

4. Set a forward-looking vision for rural policies.
5. Leverage the potential of rural areas to benefit from globalisation, trade and digitalisation.
6. Supporting entrepreneurship to foster job creation in rural areas.
7. Align strategies to deliver public services with rural policies.
8. Strengthen the social, economic, ecological and cultural resilience of rural communities.

Engaging stakeholders in policies for rural areas

9. Implement a whole-of-government approach to policies for rural areas.
10. Promote inclusive engagement in the design and implementation of rural policy.
11. Foster monitoring, independent evaluation and accountability of policy outcomes in rural areas.

Figure 3.3. Eleven OECD Principles on Rural Policy - A toolkit for implementation

Source: OECD (2019[9]), OECD Principles on Rural Policy, https://www.oecd.org/cfe/regionaldevelopment/Principles%20on%20Rural%20Policy%20Brochure%202019_Final.pdf

All these principles are difficult to adopt at once but, for Colombia, broadening its rural policy approach is already a good step that can have a positive impact on the way ministries and rural communities perceive rural policies. The country has many elements that can facilitate the adoption of the OECD Rural Well-Being Framework and principles and could build on them to speed up the implementation of this policy:

Suggestions for **targeting policy actions for all types of rural areas**, include:

- **Definitions (Principle 1)**. As discussed in Chapter 2, the country already has a granular definition for statistical purposes that differentiate rural and urban areas and a second definition proposed by the Mission for the Countryside, which differentiates among the type of rural municipalities, following population and functionality criteria. This duality of definitions still creates confusion for policy making and civil society. (Chapter 2). Therefore, the government, supported by DANE, should work on homogenising both definitions across levels of government and statistics. Other OECD countries like Chile have set up a temporary inter-ministerial committee to homogenise definitions of rural areas across different sectoral polices. This work should leverage the progress made with the functional definition of subregions. Furthermore, including a sense of proximity or accessibility to functional urban areas to differentiate between remote and close to cities could be an important addition.
- **Development policies at the right geographical scale (Principle 2)**. Recognising rural particularities is one of the pressing actions for Colombia. As mentioned before, many national policies (e.g. innovation or productivity) do not have a differentiated approach for rural regions but rather do adopt a sectoral approach differentiating the agricultural sector. This difficulty is not particular to Colombia, as other OECD countries are also looking for the right measures to identify and embed rural characteristics inside sectoral policies. A good example is an ongoing effort by the OECD to adjust measurements of innovation to reflect rural realities (Box 3.12).

Box 3.12. A fresh look at measuring innovation in rural regions

Colombia, as in most OECD countries, patents and investments in research and innovation are the most common indicators to define the level of innovation in a region (OECD, forthcoming[63]). However, these indicators contain a number of measurement biases that overlook rural performance.

Innovation, according to the 4th revision of the Oslo manual, is defined as “a new or improved product or process (or a combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)” (OECD/Eurostat, 2018[64]).

Innovation can be measured using a variety of tools, each with advantages and disadvantages for rural areas. They include:

- **Self-reported measures of innovation** like innovation surveys are a useful method for understanding firm processes and outputs.
- **Product-level data** like export statistics can capture new-to-market and -to-firm innovation.
- **Patents** are the most common measure of innovation.
- **High growth** or **productivity**.
- **Start-up entrepreneurship** as a proxy for firms that are likely to adopt new ways of producing.

The suitability for each of the proposed measurement methods for use in the rural context as compared to more urbanised regions can be summarised as biases due to the following:

- **Composition**: Bias due to the structure of the economy including the size and sector of rural firms and the occupational structure of rural labour supply.
- **Territorial endowment**: Bias due to pre-existing conditions and opportunities in rural regions that are different from those in denser regions.
- **Headquarter bias**: Bias due to statistical methods of gathering information that often centralise responses from multiple branches to firm headquarters. This often results in a downward bias for reported activities that is *de facto* occurring more frequently in less dense areas.

A better focus on the structure of rural economies would require adjusting commonly used measures such as R&D and patents to account for the types of innovation that are more common in rural regions. Moreover, focusing on innovation proxies such as entrepreneurship and start-up activities may be better suited for understanding drivers of innovation in rural areas, as it both avoids headquarter bias and its measurement is not likely to be directly affected by the compositional characteristics of rural areas.

Source: OECD, (2022[65]), *Unlocking Rural Innovation, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/9044a961-en*.

- **Support interdependencies and co-operation between urban and rural areas (Principle 3)**. Once the right definitions are in place, actions to facilitate co-operation or joint projects among rural and urban municipalities can open up new sources of income for farmers and boost regional growth. In Colombia, these actions need to begin by mapping the urban-rural linkages that exist in the country across different dimension: economic (e.g. communing, business support), social (e.g. shared education services) or environmental (e.g. shared management of waste or water). Other actions to facilitate inter-municipal co-operation include reducing red tape to co-operate or incentives for join planning like contracts (Chapter 6).

Suggestions for **adopting integrated and effective strategies** include:

- **Set a forward-looking vision for rural policies (Principle 4)**. In an increasingly interconnected and complex system, unexpected shocks have the potential to divert planned outcomes and disrupt rural economies and communities. While there is increasing acceptance of the importance to include future thinking in policy, policy-making processes at the regional and local levels tend to observe the future passively, often being reactive rather than proactive. Actively thinking about different futures is particularly relevant for rural regions in Colombia, which are at the frontline and ill-prepared to face some of the global megatrends: climate change, digitalisation or depopulation. The Colombian national rural policy should embed a forward-looking and adaptive approach that offers some flexibility to adapt to unexpected shocks and entails possible strategies for today's global megatrends. The example of Ireland's national rural policy can be of guidance for Colombia (Box 3.13).
- **Leveraging the potential of rural areas to benefit from globalisation, trade and digitalisation (Principle 5)** requires setting an enabling environment for rural communities to interact with external markets and actors (e.g. universities, international fairs of agriculture, etc.). To this end, digital connectivity is essential, not only in terms of access but also quality. Chapter 4 will discuss how to improve digital connectivity in Colombian rural areas.

Box 3.13. Our Rural Future – Ireland's rural development plan 2021-25

Our Rural Future represents the Irish Government's blueprint for a post-COVID-19 recovery and development of rural areas over the next five years. Its stated objectives are optimising digital connectivity, supporting employment and careers in rural areas, revitalising rural towns and villages

through enhanced participation, public services and resilience, as well as fostering the transition to a climate-neutral society.

The plan places particular importance on teleworking, acknowledging that the rise of this working mode has contributed to reducing transport emissions, provided a boost for small local businesses across the country and offered possibilities for young people to build a career while continuing to live in their communities, regardless of where their employer is headquartered. Planned actions specifically related to teleworking include, among other things:

- Investing significantly in teleworking infrastructure to provide an opportunity for people to continue to live in rural communities while following their career ambitions.
- Providing financial support to local authorities to bring vacant properties in town centres back into use as Teleworking Hubs and develop an integrated network of over 400 teleworking facilities throughout the country, with shared back-office services and a single booking platform for users: teleworking facilities would support the retention of skilled people in rural communities and attract mobile talent to rural areas.
- Piloting co-working and hot-desking hubs for civil servants in a number of regional towns, and moving to 20% home or teleworking in the public sector in 2021, with further annual increases over the lifetime of this policy.
- Examining the potential to introduce specific incentives to encourage teleworkers to relocate to rural towns and provide funding to local authorities to run innovative marketing campaigns targeted at attracting teleworkers and mobile talent to their county.

- **Supporting entrepreneurship to foster job creation in rural areas (Principle 6)**. Adapting the policy support to innovation and entrepreneurship in rural areas is of great importance to promoting stronger value chains in rural areas based on inter-sectoral collaboration (e.g. bioenergy). To do so, innovation and entrepreneurship policies need further rural focus. For example, the national innovation policy should involve the agricultural innovation system to target the creation of a broader rural innovation system. In the case of entrepreneurship, the national policy (CONPES Document 4011) already has some specific strategic actions to boost rural entrepreneurs, which is a good base to upscale rural SMEs and start-ups. However, many relevant strategies in this entrepreneurship policy are still generic actions to improve the ecosystem for entrepreneurs, e.g. the strategies of sophistication of financing mechanisms for entrepreneurship or the construction of support networks among entrepreneurs are strategies (Box 3.14).

Box 3.14. Rural proofing national entrepreneurship policy of Colombia

Entrepreneurship is a topic of national interest in Colombia, being one of the three central goals of Colombia's National Development Plan (PND). To respond to this goal, the government established in 2020 a national policy for entrepreneurship that calls for inter-ministerial action and the involvement of subnational actors to generate enabling conditions in the entrepreneurial ecosystem with a horizon of 2025.

The policy has five objectives with a clear action for MADR and other institutions (National Training Agency [SENA] and regional chamber of commerce) to adapt existing programmes or create new ones for rural contexts (Table 3.4). This rural proofing approach is a good practice as it recognises the need for particular attention to the characteristics of potential (also called latent) entrepreneurs in rural regions.

Table 3.4. Rural entrepreneurship support in the National Entrepreneurship Policy of Colombia

National Entrepreneurship Policy objectives	Specific rural entrepreneurship strategies (selected)
Strengthen skills development and foster an entrepreneurial culture	• Psychosocial Plan for entrepreneurs, victims of the conflict (MCIT) • Elaborate a support strategy for entrepreneurship of subsistence and inclusion, through technical assistance and mentoring initiatives (MADR) • Offer of modular training services for entrepreneurs in regions (SENA and chamber of commerce)
Improve access and sophistication of financing mechanisms	• Adjust and develop new alternative financing mechanisms for the rural population (MADR) • Formulate and implement a strategic model of intervention to support rural individuals and associations. • Review existing financing instruments in the agriculture sector, aimed at associative and/or individual rural enterprises at an early stage
Strengthen networks and strategies for marketing	• Design an integrated agribusiness associativity programme, which builds territorial productive alliances between large traders and mature and large rural producer organisations, or networks of rural producer organisations (MADR)
Facilitate technological development and innovation in new ventures	• Implement mechanisms to access technological tools for the development of productive initiatives aimed at low-income populations and victims of the armed conflict (MCIT)
Strengthen the institutional architecture to achieve an offer articulated public	• Prepare an analysis of the programmatic offer in rural entrepreneurship of the entities attached to MADR and linked to the agriculture and rural development sector, in order to implement an articulated intervention proposal and a territorial deployment strategy to disseminate the public entrepreneurship programmes in rural areas (MADR)

Note: Institutions in parenthesis refer to the main actors in charge of strategic implementation. MADR refers to the Ministry of Agriculture and Rural Development, MCIT to the Ministry of Commerce, Industry and Tourism.
Source: DNP (2020[66]), *Política Nacional de Emprendimiento, Conpes 4011*, https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/4011.pdf.

- **Align strategies to deliver public services with rural policies (Principles 7)**, as Colombia requires a particular focus on improving accessibility of rural communities to markets and services, education and healthcare. The challenge of service provision in rural areas due to population ageing and low economies of scale has led governments to look for new ways to provide services beyond traditional models. These strategies will be discussed in the next chapter.
- **Strengthen the social, economic, ecological and cultural resilience of rural communities (Principle 8)**. This involves ensuring the sustainable management of natural capital and land use and enabling the creation of value from ecosystem services, which for Colombia comes down to addressing issues of land use management and land formalisation. This action requires legal clarity and active policies to involve ethnic communities in regional development (Chapter 5).

Suggestions for **implementing the rural policy by engaging different rural stakeholders** include:

- **Implement a whole-of-government approach to policies for rural areas (Principle 9)** with a co-ordinating body or mechanism to formally establish inter-ministerial co-operation for rural-related policies. To this end, some countries have established national councils (Chile, Finland), while others presidential inter-ministerial bodies (Korea) (see Chapter 6)
- **Promote inclusive engagement in the design and implementation of rural policy (Principle 10)** involves engaging with all sectors and levels of government to design and implement national policies that improve the well-being of rural areas. For Colombia, this requires a better arrangement to boost local capacity and further involve the private sector in rural agendas.
- **Foster monitoring, independent evaluation and accountability of policy outcomes in rural areas (Principle 11)**. As mentioned in this chapter, moving from a monitoring system based on

coverage towards one that evaluates outcomes in income or well-being can set the right incentives for policies. It also requires a multi-year and transversal budget for rural policies (Chapter 6)

This is not the end…

The following chapters of this review will discuss how to address this priority. Chapter 4 outlines policies to improve accessibility in rural regions, including civil and digital infrastructure as well as access to education and healthcare. Chapter 5 focuses on the mechanism to enhance access to land with the involvement of minorities in regional development and better protection and mobilisation of the environment. Chapter 6 discusses how to implement the comprehensive rural policy approach and the institutional structure that can facilitate such co-ordination and implementation of rural policy.

References

Agrosavia (2020), *Boletín de indicadores en ciencia, tecnología e innovación del sector agropecuario 2019*, https://repository.agrosavia.co/handle/20.500.12324/36494. [28]

Antošová, G., L. Lima Santos and S. Stradová (2020), "Perception of safety tourism in Colombia", in *Advances in Tourism, Technology and Systems, Smart Innovation, Systems and Technologies*, Springer Singapore, Singapore, https://doi.org/10.1007/978-981-33-4260-6_9. [42]

Audubon Society (2017), *Birding and Ecotourism in Colombia*, https://www.audubon.org/. [48]

Berry, A. (2017), *Avance y fracaso en el agro colombiano: siglos XX y XX*, Editorial Universidad del Rosario. [24]

Centro Nacional de Memoria Histórica (2013), *La Política de Reforma Agraria y Tierras en Colombia*, National Center for Historical Memory, Imprenta Nacional, Bogotá, https://centrodememoriahistorica.gov.co/wp-content/uploads/2020/01/La-pol%C3%ADtica-de-reforma-agraria-y-tierras-en-Colombia.-Esbozo-de-una-memoria-institucional.pdf. [6]

DANE (2022), *The Great Integrated Household Survey*, https://www.dane.gov.co/index.php/estadisticas-por-tema/mercado-laboral/empleo-y-desempleo. [33]

Distintas Latitudes (2021), "Nubia e hijos: La familia colombiana, campesina y youtuber", https://distintaslatitudes.net/destacado/nubia-e-hijos-familia-youtube-colombia. [31]

DNP (2022), *Política para Impulsar la Competitividad Agropecuaria*, Consejo Nacional de Política Económica y Social - 4098, https://www.ambitojuridico.com/sites/default/files/2022-07/CONPES-4098-22.pdf. [27]

DNP (2020), *Política Nacional de Emprendimiento, Conpes 4011*, Departamento Nacional de Planeación, https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/4011.pdf. [66]

DNP (2018), *Plan Nacional de Desarrollo 2018-2022*, https://colaboracion.dnp.gov.co/CDT/Prensa/Resumen-PND2018-2022-final.pdf. [10]

DNP (2015), *El Campo Colombiano: Un Camino Hacia El Bienestar y La Paz*, Misión para la Transformación del Campo, https://www.dnp.gov.co/programas/agricultura/Paginas/Informe-misi%C3%B3n-FInal.aspx. [4]

Esteban, N. and J. Bonilla (2017), “Turismo y Posconflicto en el municipio de la Macarena, Meta-Colombia”, *RITUR-Revista Iberoamericana de Turismo*, Vol. 7/1, pp. 114-134. [40]

Federal Reserve Bank of St. Louis (2021), *Investing in Rural Prosperity*, https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/community-development/investing-rural/investinginruralprosperity-book.pdf. [12]

Franco Cañas, A. and I. De los Ríos Carmenado (2011), “Reforma agraria en Colombia: evolución histórica del concepto. Hacia un enfoque integral actual”, *Cuadernos de desarrollo rural*, Vol. 8/67, pp. 93-119. [7]

Garavito, L., E. Rozo and F. Mojica (2019), “Can tourism lead competitive and sustainable development now and in the near future in Colombia?”, *Via Tourism Review* 15, https://doi.org/10.4000/viatourism.3541. [39]

Government of Colombia (2021), “Answers to the OECD questionnaire on rural policy”. [5]

Government of Colombia (2019), *National Circular Economy Strategy: Closing of Material Cycles, Technological Innovation, Collaboration and New Business Models*, Ministry of Environment and Sustainable Development and Ministry of Commerce, Trade and Tourism, http://www.andi.com.co/Uploads/Estrategia%20Nacional%20de%20EconA%CC%83%C2%B3mia%20Circular-2019%20Final.pdf_637176135049017259.pdf. [37]

Hamann, F. et al. (2019), *Productividad total de los factores y eficiencia en el uso de los recursos productivos en Colombia*, https://doi.org/10.32468/espe.89. [23]

IDEAM (2020), *Average wind speed at 10 meters above sea level (Velocidad promedio del viento a 10 metros de altura), Institute of Hydrology, Meteorology and Environmental Studies (Instituto de Hidrología, Meteorología y Estudios Ambientales, IDEAM)*, http://atlas.ideam.gov.co/visorAtlasVientos.html (accessed on January 2022). [50]

IDEAM (2020), *Daily mean horizontal global irradiation (Irradiacion global horizontal media diaria), Institute of Hydrology, Meteorology and Environmental Studies (Instituto de Hidrología, Meteorología y Estudios Ambientales, IDEAM)*, http://atlas.ideam.gov.co/visorAtlasRadiacion.html (accessed on January 2022). [52]

IDEAM (2020), *National report on hazardous waste and residuals in Colombia, 2019 (Informe nacional de residuos o desechos peligrosos en Colombia, 2019)*, Institute of Hydrology, Meteorology and Environmental Studies (Instituto de Hidrología, Meteorología y Estudios Ambientales, IDEAM),, http://documentacion.ideam.gov.co/openbiblio/bvirtual/023901/InformeResiduos2019.pdf. [68]

IEA (2021), *The Role of Critical Minerals in Clean Energy*, International Energy Agency, https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions. [56]

IEA (2020), “Clean energy progress after the Covid-19 crisis will need reliable supplies of critical minerals”, International Energy Agency, https://www.iea.org/articles/clean-energy-progress-after-the-covid-19-crisis-will-need-reliable-supplies-of-critical-minerals. [57]

IRENA (2020), *Statistics Time Series*, International Renewable Energy Agency (IRENA), https://www.irena.org/Statistics/View-Data-by-Topic/Capacity-and-Generation/Statistics-Time-Series (accessed on September 2021). [54]

López, M. and R. González (2007), "Political violence and farm househol efficiency in Colombia", *Economic Development and Cultural Change*, Vol. 55/2, pp. 367-392. [26]

Machado, A. (1999), "El sector rural y el plan de desarrollo", *Cuadernos de Economía*, Vol. 18/30, pp. 167-179, https://revistas.unal.edu.co/index.php/ceconomia/article/view/11435. [1]

MADR (2020), *Informacion de Bienes Publicos*, Ministry of Agriculture and Rural Development, https://www.minagricultura.gov.co/ministerio/direcciones/Paginas/Informacion-de-bienes-publicos.aspx. [19]

MADR (2019), *Plan Estratégico Institucional 2019-2022*, Ministry of Agriculture and Rural Development, https://www.minagricultura.gov.co/planeacion-control-gestion/Gestin/PLANEACION/Planes_Estrategicos_Sectoriales_Institucionales/Planes%20Estrategicos%202019%20-%202022/Plan_Estrat%C3%A9gico_Institucional_2019_2022_Primera_Versi%C3%B3n.pdf. [16]

MADR (2019), *Politica Agropecuaria y de Desarrollo Rural 2018-2022*, Ministry of Agriculture and Rural Development, https://sioc.minagricultura.gov.co/Documentos/20190326_politica_agro_2018-2022.pdf. [13]

MADR (2017), *The Strategic Guidelines of Public Policy for Peasant, Family and Community Agriculture*, Ministry of Agriculture and Rural Development, https://www.minagricultura.gov.co/Documents/lineamientos-acfc.pdf. [15]

Maldonado, J. et al. (2017), "La paz es mucho mas que palomas: Beneficios economicos del acuerdo de paz en Colombia, a partir del turismo de observacion de aves (Peace is much more than doves: The economic benefits of bird-based tourism as a result of the peace treaty in Colombia)", *Documento CEDE*, No. 2017-31, https://ssrn.com/abstract=2973980. [47]

Ministry of Commerce, Industry and Tourism (2019), *Plan Sectorial de Turismo 2018- 2022*, https://www.mincit.gov.co/CMSPages/GetFile.aspx?guid=2ca4ebd7-1acd-44f9-9978-4c826bab5013. [41]

Ministry of Commercy, Industry and Tourism (2018), *Programa de Turismo Comunitario*, Dirección de Calidad y Desarrollo Sostenible del Turismo. [43]

Ministry of Mines and Energy (2019), *Plan Estrategico Sectorial 2019-2022*, https://www.minenergia.gov.co/documents/10192/24181417/Contexto_estrat%C3%A9gico+13+08+2020.pdf. [61]

Mora, J. (2018), "Oportunidad del turismo comunitario en el desarrollo rural del posconflicto colombiano", in Medina, F. (ed.), *Gastronomía, Hotelería y Turismo: Sostenibilidad e inclusión*, Fundación Universitaria San Mateo. [34]

Mordor Intelligence (2020), *Colombia wind energy warket: growth, trends, COVID-19 impact, and forecasts (2021-2026)*, Mordor Intelligence,, https://www.mordorintelligence.com/industry/reports/colombia-wind-energy-market. [49]

Norton Rose Fulbright (2016), *Renewable energy in Latin America*, https://www.nortonrosefulbright.com/en/knowledge/publications/b09be352/renewable-energy-in-latin-america-colombia. [51]

Nubia e Hijos (2020), *Familia Campesina decide volverse YouTuber*, https://www.youtube.com/channel/UCeUlkw2mOytSyH-7GerzeLQ. [30]

Ocampo-Peñuela, N. and R. Winton (2017), "Economic and conservation potential of bird-watching tourism in postconflict Colombia", *Tropical Conservation Science*, Vol. 10, p. 194008291773386, https://doi.org/10.1177/1940082917733862. [46]

OECD (2022), *Enabling Conditions for Bioenergy Finance and Investment in Colombia*, Green Finance and Investment, OECD Publishing, Paris, https://doi.org/10.1787/20f760d6-en. [36]

OECD (2022), *Unlocking Rural Innovation*, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/9044a961-en. [65]

OECD (2021), *Agricultural Policy Monitoring and Evaluation 2021: Addressing the Challenges Facing Food Systems*, OECD Publishing, Paris, https://doi.org/10.1787/2d810e01-en. [14]

OECD (2021), "Managing tourism development for sustainable and inclusive recovery", *OECD Tourism Papers*, No. 2021/01, OECD Publishing, Paris, https://doi.org/10.1787/b062f603-en. [45]

OECD (2020), *OECD Tourism Trends and Policies 2020*, OECD Publishing, Paris, https://doi.org/10.1787/6b47b985-en. [35]

OECD (2020), *Rural Well-being: Geography of Opportunities*, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/d25cef80-en. [11]

OECD (2019), *Linking Indigenous Communities with Regional Development*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/3203c082-en. [44]

OECD (2019), *OECD Mining Regions and Cities Case Study: Outokumpu and North Karelia, Finland*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/cd72611b-en. [62]

OECD (2019), *OECD Principles on Rural Policy*, https://www.oecd.org/cfe/regionaldevelopment/Principles%20on%20Rural%20Policy%20Brochure%202019_Final.pdf. [9]

OECD (2018), *OECD Rural Policy Reviews: Poland 2018*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264289925-en. [25]

OECD (2017), "Mining regions and their cities", Scoping Paper, OECD, Paris, https://www.oecd.org/cfe/regionaldevelopment/Scoping-paper.pdf. [59]

OECD (2015), *OECD Review of Agricultural Policies: Colombia 2015*, OECD Review of Agricultural Policies, OECD Publishing, Paris, https://doi.org/10.1787/9789264227644-en. [18]

OECD (2014), *OECD Rural Policy Reviews: Chile 2014*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264222892-en. [32]

OECD (2012), *Linking Renewable Energy to Rural Development*, OECD Green Growth Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264180444-en. [55]

OECD (forthcoming), *Enhancing Rural Innovation*, OECD, Paris. [63]

OECD/EC (2021), *The Missing Entrepreneurs 2021: Policies for Inclusive Entrepreneurship and Self-Employment*, OECD Publishing, Paris, https://doi.org/10.1787/71b7a9bb-en. [29]

OECD/Eurostat (2018), *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition*, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris/Eurostat, Luxembourg, https://doi.org/10.1787/9789264304604-en. [64]

Parra-Peña, R., R. Puyana and F. Yepes (2021), "Análisis de la productividad del sector agropecuario en Colombia y su impacto en temas como: encadenamientos productivos, sostenibilidad e internacionalización, en el marco del programa Colombia más competitiva", Bogotá, Fedesarrollo, http://hdl.handle.net/11445/4092. [22]

Parra-Peña, R., R. Puyana and F. Yepes (2021), *Análisis de la Productividad del Sector Agropecuario en Colombia y Su Impacto en Temas Como: Encadenamientos Productivos, Sostenibilidad e Internacionalización, en el Marco del Programa Colombia Más Competitiva*, http://www.colombiacompetitiva.gov.co/prensa/Documents/Informe-Productividad-Agropecuaria-10Marzo2021.pdf. [17]

PND (2018), *Conpes 3932 de 2018. Plan marco de implementación del Acuerdo Final*, National Planing Department, https://acmineria.com.co/acm/wp-content/uploads/normativas/3932_plan_marco_implementacion_acuerdo_final.pdf. [8]

Presidential Counsel for Stabilization and Consolidation (2022), *Sectoral National Plans*, https://www.portalparalapaz.gov.co/loader.php?lServicio=Tools2&lTipo=descargas&lFuncion=descargar&idFile=839. [20]

Ramos, J. (2021), *Mining Potential and Presence of Strategic Minerals in Colombia*, Asociación Colombiana de Geólogos y Geofísicos del Petróleo. [60]

Sanabria, A. (Forthcoming), "Measuring well-being in mining regions", OECD, Paris. [58]

UNDP (2011), *Colombia rural Razones para la esperanza*, Informe Nacional de Desarrollo Humano 2011, United Nations Development Programme. [2]

UPME (2011), *Atlas del potencial energético de la Biomasa residual en Colombia*, Planning Unit of the Ministry of Mines and Energy, https://www1.upme.gov.co/siame/Paginas/atlas-del-potencial-energetico-de-la-biomasa.aspx. [38]

USDA (2021), *Homepage*, United States Department of Agriculture, https://www.usda.gov/. [21]

USDA (2021), *International Agricultural Productivity*, Economic Research Service, United States Department of Agriculture, https://www.ers.usda.gov/data-products/international-agricultural-productivity/. [67]

World Bank (2020), *Solar resource maps of Germany, Global Solar Atlas 2.0*, https://solargis.com/maps-and-gis-data/download/germany (accessed on September 2021). [53]

World Bank (2014), *Colombia Policy Notes: Toward Sustainable Peace, Poverty Eradication and Shared Prosperity*, World Bank, Washington, DC. [3]

Notes

[1] TFP measures the amount of agricultural output produced from the combined set of land, labour, capital and material resources employed in farm production. It encompasses the average productivity of all of these inputs employed in the production of all agricultural commodities. Growth in TFP reflects the overall rate of technical and efficiency change in the sector. If total output is growing faster than total input, then the total productivity of the factors of production (i.e. total factor productivity) is increasing. Over the long term, improvement in agricultural productivity has been the world's primary means of assuring that the needs of a growing population do not outstrip the capacity of the world's resources to supply food (USDA, 2021[67]).

[2] The transformation ratio is measured as the added value of the food, beverage and tobacco sector within manufacturing, relative to the added value of primary production in the agricultural sector.

4 Improving connectivity and service delivery in Colombian rural areas

This chapter assesses the main opportunities to improve transport and digital connectivity as well as access to quality education and healthcare in Colombian rural communities. It begins with a brief analysis of the status of transport infrastructure for rural areas in Colombia, with a focus on tertiary roads and mobility. It then expands the analysis on connectivity by identifying the main barriers and opportunities to improving broadband Internet access in rural communities. It ends by outlining the bottlenecks and opportunities to improving rural education and healthcare provision.

Assessment and recommendations

Assessment

Rural regions in Colombia have long faced a lag in connectivity and access to markets and public services, which has prevented greater well-being and productivity. Some regions lack connection to the primary road network, most municipal roads are unpaved (94%) and some in-land rural areas are only reachable by river transport, which still has an incipient infrastructure. The accessibility gap is also evident in education and healthcare, where rural regions register issues in access and quality. A severe broadband connectivity gap in access and quality adds to this historic rural deficiency in access to transport and services (e.g., only 28.8% of rural households have broadband access, fixed and/or mobile, vs. 70% in urban areas). Access to electricity and water has had an important progress, but the urban-rural gap is still high.

The Colombian government has put in place long-term plans to close gaps in rural connectivity and access to services. Transport infrastructure has been a major priority in the last decade, with important projects on primary roads. This has been complemented by recent efforts to provide broadband connectivity in rural areas (e.g. *Zonas Digitales* and *Centros Digitales* programmes). Basic educational and health outcomes have also improved (e.g. reduction of illiteracy and almost universal healthcare access) and the government has recently issued national policies with a particular focus on rural services, including education, healthcare, electricity or water among others.

Current national plans to improve rural connectivity and accessibility are in the right direction but need to be accelerated, with sufficient financial and human capacity and a more comprehensive approach. The implementation of these plans needs particular focus on empowering local networks, adapting national strategies to rural needs and leveraging experimentation and alternative local approaches (e.g. alternative structures to provide mobility, community networks for broadband connectivity, mobile or virtual education and healthcare provision). Co-ordination with local governments needs to be improved, particularly in rural information (e.g. road and broadband infrastructure) and transparency in administrative procedures. Moreover, some current programmes need to be carefully reviewed to improve their impact. For example, programmes of free public broadband access have faced major continuity challenges and lacked territorial prioritisation. Importantly these programmes are not a substitute to connect businesses and people directly through fixed and mobile broadband subscriptions.

Recommendations

Rural transport Infrastructure

- ***Prioritise road transport projects and multimodal transport solutions to connect remote rural regions***. To this end the government of Colombia should:
  - Accelerate and prioritise investment in primary roads projects that connect remote rural regions, including Amazonas, Chocó, Guainía and Vichada.
  - Strengthen the *Colombia Rural* programme with greater financial and institutional capacity to adopt a proactive approach to reach subnational governments that do not apply to the co-finance scheme.
  - Accelerate the implementation of multimodal transport projects, mainly the rail network and fuvial transport. To this end, the government should diversify infrastructure funding to implement the existing multimodal transport plan, for example through aggregation of funding sources from different levels of government and the private sector and value capture mechanisms.

- ***Accelerate efforts to improve the information on the inventory and quality of tertiary roads in the country***. To this end, the government could formalise alternative georeferencing solutions and evaluate the possibility to leverage other ongoing efforts for an improved rural information system.
- ***Enhance local co-operation to expand and improve tertiary roads by mobilising local communities and inter-municipal partnerships for road investment and maintenance***. To this end the government of Colombia should*:*
  - Promote partnership models between the government and local communities to support the creation and involvement of local micro-enterprises for road maintenance.
  - Support inter-municipal partnerships for co-investment in the expansion and maintenance of tertiary roads.
  - Expand the Work for Taxes scheme to increase private sector participation in the improvement of tertiary roads.

Broadband connectivity

- ***Foster communication infrastructure deployment by involving local governments in rural digital transformation***. To this end, Colombia should:
  - Provide legal certainty and reduce the burden of installation procedures and costs associated with broadband deployment at the local level. The Ministry of Information and Communication Technologies (MinTIC) currently employs advisors at the departmental level who support infrastructure deployment and who are able to provide support for the infrastructure deployment policies in municipalities. In addition, technical advisory work to support municipal authorities may also be established by the National Spectrum Agency (ANE) and the Commission for Communications Regulation (CRC).
  - Increase transparency on potential locations for communication infrastructure deployment and on existing communication assets.
  - Develop a campaign to educate local governments and their decision makers and population on the importance and advantages of connectivity and reduce potential concerns.
- ***Amplify the impact of current policies to provide rural areas with greater connectivity***. To this end, Colombia should:
  - Undertake further analysis on how the Azteca fibre optic backbone could connect more businesses and homes while creating an environment where private companies could leverage the existence of the backbone.
  - Ensure that contractors of the *Zonas Digitales* and *Centros Digitales* programmes are fulfilling their obligations and objectives, in particular the commitments acquired with the programmes that are funded by the *Fondo Único de TIC*.
  - Improve the maintenance and overall continuity of the *Zonas Digitales* and *Centros Digitales* initiatives and the medium- to long-term viability of these programmes.
  - Strengthen comprehensive policies (e.g. National Rural Connectivity Plan) to expand high-quality broadband access to complement programmes of points of public broadband access. This should acknowledge that *Zonas Digitales* and *Centros Digitales* programmes do not substitute connecting underserved people and businesses directly through fixed and mobile connections.
- ***Leverage mobile services to narrow the rural-urban connectivity divide***. To this end, Colombia should:

- Monitor and ensure that operators are adhering to their coverage obligations resulting from the 700 MHz auction.
- Take into account coverage and competition considerations simultaneously, when planning the design of the upcoming 3.5 GHz auction. Coverage obligations can further contribute to broader coverage of rural and remote areas. It should be ensured that the extent of the coverage obligation is not an impediment for certain actors to bid in the auction. Competition considerations should be taken into account, given the dominance of provider Claro in the mobile communication services market.
- Auction the 3.5 GHz spectrum as soon as possible and forego delays.
- Provide a timely, transparent process and clear rules for spectrum license renewals. Given the importance of connectivity for the country and the positive spill-over effects to all sectors of the economy, ensure that licence fees are not set at overly excessive prices, i.e. that they do not maximise fiscal revenues but rather increase overall welfare in the country.

- ***Ensure that taxation and sectoral fees do not hamper the adoption of communication services in rural areas***, as these taxes and fees may be passed on to customers. This is especially problematic since the communication sector creates many positive spill-over effects throughout the economy. To this end, Colombia should:
  - Identify means to reduce the taxes and fees paid by communication operators, for example their contributions to the *Fondo Único de TIC*, to reduce prices of communication services and devices for consumers.
  - Ensure that the use of the resources of the *Fondo Único de TIC* is monitored, the projects evaluated and set up in a way that maximises welfare and extends high-quality connectivity in sustainable ways.
- ***Complement measures to extend connectivity through bottom-up approaches and innovative regulation***. To this end, Colombia should:
  - Create an enabling environment for the development of community-led initiatives. Colombia could consider facilitating the creation of community networks by:
    - Facilitating interconnection with already deployed networks.
    - Allowing for the deployment and operation of community networks by non-profit entities through lower licensing costs and lower bureaucratic burdens around compliance with administrative requirements to maintain the networks.
    - Considering the use of the *Fondo Único de TIC* for community-led initiatives if their creation caters to more sustainable access to connectivity than other projects financed by the fund.
    - Implementing the measures set out in the Spectrum Management Master Plan to provide community-led initiatives with the necessary spectrum without delay.
  - Recognise small Internet service providers (ISPs) as important players in extending connectivity in rural areas, especially with respect to the last mile. Measures to promote a favourable environment for small ISPs include the facilitation of access and interconnection with other networks and lower bureaucratic burdens.
  - Consider ways to enable more companies to experiment with projects in the regulatory sandbox that may further the deployment and usage of communication services in rural areas. This may involve the reduction of the administrative burden for community-led initiatives and potential regulatory sandboxes.

Education and health

- ***Co-ordinate the implementation between the National Rural Health Policy and the National Rural Education Policy along with other development actions in rural communities***, including infrastructure projects in sanitation and broadband coverage.
- ***Reinforce flexibility of education and healthcare systems by better adapting them to rural needs and involving local actors in decision-making***. To this end, the government should:
  - *Education*: Better adapt education policies to particularities of local needs, while promoting minimum quality, by:
    - Developing core curriculum national guidelines to ensure minimum level in some basic competencies (e.g. mathematics and reading) that help recover learning losses from COVID-19, while leaving subnational flexibility in the rest of the curriculum. This flexibility should be accompanied by a careful evaluation from national and regional authorities to identify schools that need support to manage curricula autonomously.
    - Better integrating local communities – including Indigenous and Afro-Colombian – in educational decision-making by encouraging initiatives such as "learning communities", which gather small groups of students, teachers and families.
    - Fostering alternative and flexible schools with adapted processes to address rural dropout, for example by focusing on children with gap years in education. Chile's Súmate Foundation initiative could be a useful example for Colombia.
    - Adding greater flexibility in school food programmes (PAE) to support local producers, for example by integrating local culture and culinary products into menus.
  - *Health*: Scale up flexible healthcare alternatives to empower the rural population around health, by:
    - Further supporting mobile healthcare units in rural departments to improve staff's professionalisation and reach remote communities with more frequency.
    - Leveraging alternative healthcare practices (e.g. Indigenous approaches) in rural communities and supporting their complementarity with conventional healthcare provision.
    - Encouraging the adaptation of payment methods to the specific risk profiles of rural citizens by providing healthcare providers with incentives to offer differentiated care to patients with different risk factors.
- ***Upscale the quality of healthcare and education provision by fostering digital services, upskilling rural professionals and improving attraction policies***. To this end, the government should:
  - *Education*: Improve digital skills of rural teachers through specific courses and collaborative networks, while improving teacher attraction policies in rural areas, by:
    - Improving rural teachers' access to training with targeted courses on digital skills and new teaching methodologies, while ensuring accessibility to training supply (e.g. transport costs). Volunteer committees on teacher cross-training can support this.
    - Encouraging attraction and retention policies for rural teachers through career incentives (e.g. faster progression in the career system), financial and non-financial compensations for long travel times or further accommodation support.
  - *Health*: Promote the adoption of telemedicine and the digital skills of healthcare professionals in rural areas by:

  - Leveraging mobile service to complement the provision of telemedicine services through fixed connections in rural areas.
  - Fostering collaboration with universities and schools to improve healthcare professionals' skills in the use of digital equipment.

- ***Facilitate complete trajectories by better connecting upper secondary education with labour market needs***. To this end, the government should:
  - Encourage the expansion and diversification of rural education in line with rural economic activities.
  - Better connect the educational offer for youth and adults wishing to complete their studies with the needs and priorities of the territories and with the innovation ecosystem (e.g. universities or companies). For this, the government can strengthen the Tutorial Learning System.
  - Involve education institutions (including the National Training Service [SENA]) in the rural policy-making process by partnering with local governments to co-build development plans and adapt the educational offer to future economic and social needs. The example of the Academy for Smart Specialisation of Karlstad University in Sweden could guide the government of Colombia.
- ***Ensure lasting health outcomes through policy co-ordination with a focus on primary healthcare***. To this end, the government should:
  - Adopt a comprehensive and inter-sectoral approach to improve primary health and prevention services in rural areas. This can involve strengthening the co-ordination capacity of early childhood development services.
  - Unify healthcare service support programmes to avoid entry barriers and administrative burdens (e.g. users travelling several times to claim their benefits for different healthcare programmes) leading to unnecessary travel for rural citizens.
  - Reorganise primary care around multidisciplinary teams to simplify procedures and achieve economies of scale. The case of Multi-professional Health Houses in France can be a guide for Colombia.

Introduction

Colombia has made significant progress over time to extend connectivity and improve the accessibility of rural communities to education and healthcare. In recent years, increased investments in transport infrastructure, mainly primary roads, along with ambitious plans of multimodal transport and greater recognition of the need to expand digital connectivity in rural communities is a sign of the development process in the country. New approaches to bringing education and healthcare to rural communities have also contributed to a steady improvement of services in rural communities.

However, closing the accessibility gap in rural areas still faces some challenges. Geography is the first factor that hampers more rapid progress in infrastructure and service delivery. The costs needed to provide good quality services in places with smaller and more dispersed populations are higher, given the smaller economies of scale. Apart from geographical barriers, violence, weaker institutional capacity at the local level and greater difficulties in attracting service professionals are still factors to be solved in Colombian rural areas.

For a long time, the lack of connectivity in Colombian rural regions has underpinned a structural development gap with urban areas and fed a feeling of abandonment. Today, the Colombian government has the opportunity to start mitigating this historical gap by accelerating projects of transport infrastructure and ensuring quality access to broadband. Digital connectivity in a geographically fragmented country such as Colombia can open multiple opportunities to join international markets, strengthen the network of producers and consumers, access information, adopt new technologies and access public services. If complemented with training and education, jointly closing the transport and digital gap can represent a significant improvement in the well-being of rural inhabitants.

This chapter assesses the main opportunities to improve transport and digital connectivity as well as access to quality education and healthcare in Colombian rural communities. It begins with a brief analysis of the status of transport infrastructure for rural areas in Colombia, with a focus on tertiary roads and mobility. It then expands the analysis on connectivity by identifying the main barriers and opportunities to improving digital accessibility in rural communities. The chapter ends with a focus on the bottlenecks and opportunities to improving rural education and healthcare provision.

Improving transport and broadband infrastructure in Colombian rural regions

Transport and broadband infrastructure are a necessary driver for productivity growth and well-being in OECD rural regions. It improves accessibility to local, national and international foreign markets, facilitates public service delivery and reduces transportation and marketing costs. In countries where rural economies are increasingly diversifying, like Colombia, better broadband infrastructure would also be an engine to stimulate off-farm economies and improve territorial interdependencies and cohesion (Pinstrup-Andersen and Shimokawa, 2006[1]).

Given that the Colombian government has already examined the challenges of road infrastructure and defined some initial strategic actions and long-term plans to improve it (Government of Colombia, 2016[2]; 2019[3]), this section puts greater emphasis on the actions required to improve an equally important type of connectivity: access to broadband infrastructure.

Keep closing rural accessibility gaps with transport infrastructure

Colombia is the third largest country in Latin American and almost double the size of OECD countries like France. Colombia's road network is divided into primary, secondary and tertiary roads. Each of these networks are under the responsibility of a different level of government and cover different parts of the territory (Ministry of Transport, 2019[4]):

- **Primary roads**. By 2018, the Primary Network represents 8% of the national road network, divided into the Concession Network (5%), under the responsibility of the National Infrastructure Agency (ANI), and the Non-Concession Network (3%), under the responsibility of the National Roads Institute (INVÍAS).
- **Secondary roads** account for 22% of the national road network and fall under the competency of regional governments, which rely on this network to connect different municipalities inside the region and link them to primary roads.
- **Tertiary roads** represent 70% (approximately 142 284 km) of Colombia's road network. Most of this network is managed and under the responsibility of the municipal government (71%), while some shares are managed by the national (19%) and regional (10%) governments. There are also private and rural roads, with other types of paths found particularly in remote and mountainous municipalities.

The country faces an important lag in transport infrastructure development when compared with other countries of similar income levels in Latin American and certainly in comparison with OECD countries. Colombia's road density (530 km per million inhabitants) is below countries of a similar level of development in Latin America such as Brazil (1 066 km) and Mexico (1 188 km). Likewise, Colombia's transport infrastructure is identified as one of the main factors hampering Colombia's international competitiveness, ranking 104 among 141 countries in terms of road quality infrastructure within the World Economic Forum Global Competitiveness Index (WEF, 2019[5]), below countries like Argentina and Mexico.

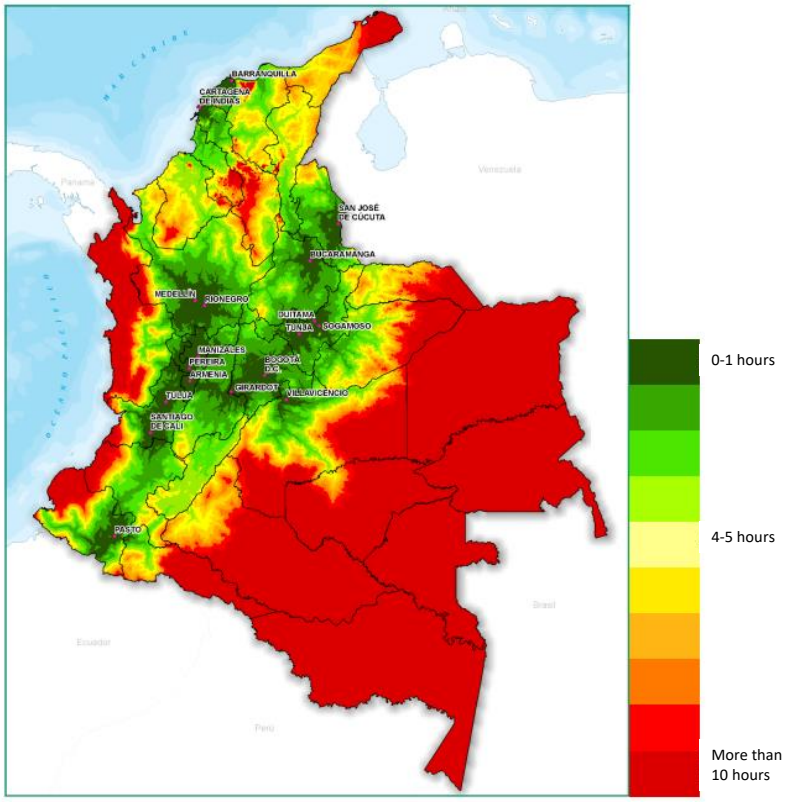
Communities in rural regions in the east, west and north of Colombia face long commutes, sometimes up to 10 hours, to reach 1 of the 12 cities in the country (Figure 4.1). The primary road network is concentrated in the Andean and Atlantic regions, facilitating the connection between the country's main production centres and its key ports, while there is less connectivity from west to east. Some municipalities are not even reachable by land (e.g. in Chocó).

An important challenge for transport connectivity in Colombia is the extension and quality of tertiary roads. There are regions like Amazonas, Chocó, Guainía or Guaviare which are larger than 45 000 km square but have less than 1 500 km of tertiary roads (Government of Colombia, 2016[2]). In terms of quality, only 6% of the tertiary roads with available information are paved and 25% are classified in a good state. A seminal issue is the acute lack of information about this network. As of 2022, there was no certainty on the number of existing tertiary roads, their state and the average daily traffic.

Moreover, there is a high dependence on road transport in the country, which makes transport inefficient and expensive. High reliance on one type of transport infrastructure – roads in Colombia – leads to congestion in connective passenger and freight transport and explains the low quality of infrastructure. Historically, most of the investment has focused on road infrastructure (Figure 4.2). Most of the cargo is transported by road (81% in 2018), with a small share by rail (15.7%), river (1.7%) or air (0.1%) (Ramírez-Giraldo et al., 2021[6]). Mining industry energy products are mainly transported by rail (coal) or boat (93% of the load on Magdalena River corresponds to petroleum derivatives).

Figure 4.1. Distance to reach any of the 18 largest cities in Colombia

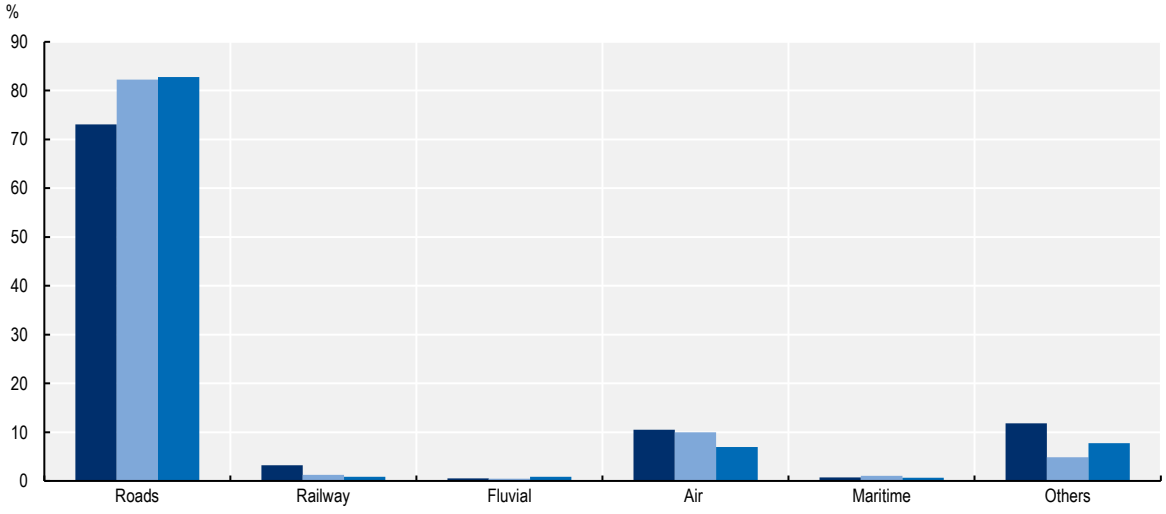
Commuting time over land



Source: Ministry of Agriculture and Rural Development (2019[7]), *Politica Agropecuaria y de Desarrollo Rural 2018-2022*, https://sioc.minagricultura.gov.co/Documentos/20190326_politica_agro_2018-2022.pdf.

Figure 4.2. Distribution of public investment in transport infrastructure in Colombia

Share by mode of transport over total investment



Source: Ramírez-Giraldo, M. et al. (2021[6]), "La inversión en infraestructura de transporte y la economía colombiana", https://doi.org/10.32468/espe.99.

Government policies aiming to improve transport infrastructure

Since 2015, Colombia established an ambitious plan to improve transport infrastructure and connectivity through multimodal transportation projects, commonly referred to as the Intermodal Transport Master Plan (PMTI). This initiative encompassed 101 road, 52 highway, 5 railway, 8 fluvial, 31 airport and various dredging projects. These policy objectives translated into an increase in public transport investment. While investment in transport infrastructure was 1.06% of gross domestic product (GDP) during the 2006-10 period, this percentage reached 1.54% during the 2011-13 period and 3.10% for the 2014-16 period.

The more ambitious plans have mainly focused on primary road infrastructure, under the name of fourth-generation (4G) and five-generation (5G) roads. This plan has relied on the active involvement of the private sector, based on the modern regulatory framework for public-private partnerships (PPPs). Colombia's regulatory framework for infrastructure ranks as one of the most competitive in the world across different rankings (EIU, 2017[8]; World Bank, 2018[9]). In 2021, the government established the Investment Plan for the reactivation of the economy, on the path to COVID-19 recovery, which added new transport goals and projects, e.g. finishing 28 road projects already underway and starting another 22 road corridors for national and territorial integration. Resources for this plan will be added to those already provided for in the National Development Plan (PND), which represents the largest public investment in transport (total budget of COP 9.6 billion in 2021) in the last decade (Ramírez-Giraldo et al., 2021[6]). Some of these 4G and 5G road projects will be important to connect and unlock rural regions such as Chocó.

In terms of secondary and tertiary roads, the national government had tried to compensate for the low investment by regional and municipal governments with direct investments through various strategies. These include the 2009-10 Program for the Improvement and Routine Maintenance of Tertiary Roads (PROVITER, with a forgivable loan for 538 municipalities), the 2011 Paths to Prosperity plan to repair secondary and tertiary roads, particularly the ones affected by the climate, and direct agreements between National Roads Institute (INVÍAS) and municipalities to improve road quality.

As part of the commitments in the peace agreement, in 2016, the national government issued a national policy for tertiary roads to establish a support management scheme for territorial entities. This policy targets five main actions: i) update the inventory of tertiary roads; ii) set a methodology to guide municipalities in the prioritisation of road investment; iii) issue technical and environmental norms for the construction of tertiary roads with better methods and materials that involve local offers; iv) adopt a co-financing model that allows favouring municipalities with the greatest needs; and v) promote efficiency and transparency in the contracting processes of tertiary roads, seeking better risk management.

In 2019, the Ministry of Transport through INVÍAS launched the Rural Colombia programme to co-finance improvement works and road maintenance in the secondary and tertiary networks. This project works under voluntary application from municipalities and regions through a virtual platform that aims at reducing the administrative burden in the submission process. The programme has a special fund targeting the municipalities most affected by the armed conflict, and included in the Development Programs with a Territorial Approach (PDET).

There is scope to improve road quality and tertiary roads to connect rural areas

Keeping up the investments ratio in infrastructure

Overall, recent investment efforts are on track to close the historic gap in infrastructure in the country but the level of investment will need to keep up. The investment in recent years (3% of GDP in 2019-21) doubles the average trends during the last decade (1.9% in 2010-20) but is still below average investments rates across other middle-income countries in East Asia and the Pacific or South Asia (5.7% and 2.25% respectively). Furthermore, according to different authors, this ratio of investment would still be below the

one needed to converge to transport infrastructure levels of countries with a similar stage of development, ranging between 4% and 6% of GDP (Bonifaz et al., 2020[10]; Cavallo, Powell and Serebrisky, 2020[11])

While projects on primary roads seem to be on track, the challenge to expand and improve secondary and tertiary roads remains. Programmes that gather resources from different sources and co-ordinate investments towards a single target of improving municipal roads can achieve economies of scale and accelerate the projects. The programme *Colombia Rural* is a good start for this. It could pull in resources from the General System of Royalties, the Work for Taxes (*Obras por impuestos*) scheme and subnational and private resources. This programme needs, however, a more proactive approach that not only relies on voluntary applications for co-finance but also actively reaches poor municipalities beyond the ones classified as PDET.

Moreover, the Work for Taxes scheme created in 2016 could be further expanded to cover tertiary roads in all of the poorest rural municipalities. This mechanism allows the private sector and taxpayers – with a minimum level of income – to reduce the amount of income tax by investing directly up to 50% of this tax in the construction of infrastructure works in the 344 municipalities classified as Zones Most Affected by the Armed Conflict (ZOMAC) (almost 30% of municipalities in the country). This means a company, which tends to be in extractive industries operating in the region, can directly invest and build the infrastructure project, which helps mitigate underinvestment by municipal governments and create social acceptance of its economic activity.

Greater focus on road quality, especially for regional and municipal roads

Moreover, the important investment in road network expansion has not been reflected in road quality. During the last 2 decades, there have been no significant advances in the percentage of paved roads in the primary road network, whose share of paved roads remain around 75-80% since 2000 (INVIAS, 2021[12]; Ramírez-Giraldo et al., 2021[6]). In fact, the quality of road infrastructure (3.4 points according to 2019 World Economic Forum [WEF] index) remains below the average of Latin American countries (3.6). The most worrying case corresponds to secondary and tertiary roads. Approximately only 6% of tertiary roads in the country are paved (Government of Colombia, 2016[2]).

A pressing need to improve information on road transport

Information on the number of tertiary roads is a seminal challenge for Colombia. This is partially explained because municipalities and regional governments do not provide complete information on the roads under their responsibility or they do so using different standards and methods. There are no clear protocols for updating the information or a centralised database for these roads. This issue is partially due to a lack of financial and staff capacity at the local level to undertake these tasks but also still incipient support to provide technical assistance.

The government could formalise short-term solutions, such as alternative estimation exercises to map the tertiary road network. A project to use satellite imagery and artificial intelligence (AI) has led the National Planning Department (DNP) and the Ministry of Transport to identify the baseline of the country's tertiary roads. The project has managed to estimate 87% of the national territory. This information can be used as a baseline for municipalities and is estimated to save between 40% and 60% in the cost of municipal road inventories (DNP, 2022[13]). This project can be further improved if it is linked to the *Catastro Multipropósito* to ensure inter-operability of the information.

Boosting local capacity and involvement of local communities to improve transport infrastructure

The regional governments' and municipalities' management of secondary, tertiary and rural road networks is done without technical criteria or planning (Government of Colombia, 2019[3]). This issue leads to low quality construction projects – unpaved roads – that become temporary solutions due to their vulnerability to climate effects. Furthermore, the lack of clarity in terms of the prior consultation process to start a project is an additional challenge that also affects other infrastructure projects in the country. As discussed in Chapter 5, by 2022, the regulation on prior consultation had not been enacted, which creates uncertainty for both transport projects and communities (see Chapter 5 for some recommendations in this regard).

In 2019, the government established a special commission to identify, among others, strategies to address the historic gap in transport infrastructure (Government of Colombia, 2019[3]). Some of the recommendations from this commission highlighted the need to strengthen regional transport secretaries and improve their rules of government, as well as direct the existing maintenance co-operatives to tertiary and rural roads with municipal funding. Moreover, boosting a sense of belonging in communities could help ensure projects are carried out to a minimum quality standard and maintenance is undertaken. For example, routine maintenance must find partnership models between the government and the communities that live near the roads, promoting participation schemes such as road maintenance micro-enterprises (such is the case of Provías Rural in Peru) (Government of Colombia, 2019[3]).

Additionally, promoting urban-rural co-operation in transport projects could support rural municipalities in the development of road infrastructure. This would be particularly useful for rural areas close to small- or medium-sized cities. To this end, some OECD countries have used partnerships, where the government of the urban municipality takes on the maintenance of the roads and receives compensation from surrounding rural governments (e.g. Poland) (OECD, forthcoming[14]). The Colombian government could also set up co-operation partnerships around transport in national and regional development plans as a priority strategy for some regions. Incentives like co-funding urban-rural transport projects with national resources could also trigger inter-municipal co-operation in the country.

Accelerating intermodality to increase mobility options for rural communities

There is a pressing need to accelerate the development of other modes of transport to free up space on roads and also improve the mobility of people and freight.

Development or improvement of the railway network in Colombia should also be a priority action for the government of Colombia, to increase competitiveness and opportunities for rural economies in the country. In 2018, the railway network had 603 km in operation, of which 66% is used for the transportation of coal while the remaining 2 885 km of railway lines are inactive (Ramírez-Giraldo et al., 2021[6]). The national government has already set up the strategies to develop cargo and passenger railways in the country, a Railway Master Plan (2020), which could reduce up to 26% of logistics costs.

Fluvial transport is also an important focus. INVÍAS is implementing the Colombia Fluvial programme, which seeks to connect the most remote areas of the country, through the construction of fluvial infrastructure (docks, access platforms and ferries) and the maintenance of fluvial corridors (dredging, signposting, logging and cleaning). The first objective of this programme will be carried out through 45 projects. The DNP is also updating the River Master Plan issued in 2015.

Financing is an important aspect to accelerate the deployment of an alternative mode of transport, railway and fluvial, as well as support the development of tertiary roads. To reach full implementation of the multimodal transport plan, the government needs to diversify infrastructure funding. It currently comes from two sources: i) public contributions from the General Budget of the Nation (PGN), royalty resources or transfers, or local taxes in the case of territorial entities; and ii) direct charges to users or beneficiaries of

the infrastructure, mainly through tolls (often used to pay back PPP projects) (Government of Colombia, 2019[3]).

According to the 2019 special commission on infrastructure, options for funding diversification include sales of state assets and the use of resources from the residual value of assets in infrastructure, or land value capture instruments. This last instrument is of particular relevance for municipal roads, in the framework of updating land information systems (*Catastro Multipropósito*, see Chapter 5) and the expectation that it leads to increased local property taxes. Another option suggested by this commission is allowing aggregation of payment sources from different levels of government and the private sector. Currently, there are resources available for infrastructure from royalties and the programme Work for Taxes (*Obras por impuestos*), which can be combined with land value capture instruments to increase the scale of investment. This type of aggregation of resources for priority infrastructure investment could be done through place-based interventions for rural regions, for example with a similar approach to PDET.

All these projects at the national level are of high importance to improve accessibility across the country and more importantly connect remote rural communities. These plans, especially the investment in fifth-generation (5G) highways, the implementation of the railway plan and the improvement of the navigability of Magdalena River need to be continued. This should require long-term investments and political commitment from future governments to implement and finalise these projects.

Improving rural mobility with innovative transport options

Beyond investing in rural infrastructure, rural communities can also adopt innovative ways of mobility to increase commuting despite physical transport bottlenecks. Even with roads in place, some communities do not have public transport systems or access to private vehicles to benefit from the roads. Limited transport options in peripheral, rural and remote areas hinder effective access to services and markets.

A number of OECD countries are developing novel ways to provide economically viable, affordable, inclusive and sustainable mobility where private and conventional public transport struggle to provide appropriate connections (Box 4.1). Innovative mobility is not necessarily based on new technological approaches. It could be a new mobility offer (e.g. a new carsharing programme), a process change that increases the uptake of an existing solution (e.g. introduction of an online booking system) or a social or institutional process that results in the identification or application of a new mobility approach (e.g. collective walking and cycling “school buses”) (ITF, 2021[15]).

Box 4.1. Options of innovative rural mobility across OECD countries

Flexible and innovative mobility services that are adapted to unique local circumstances are the best way of ensuring critical links to core public transport networks. Despite increased interest from policy makers, new mobility approaches are rarely implemented on a large scale and lack integration with the wider transport network, due to the funding, legal and institutional environment. Yet, adopting innovative ways of mobility relies mostly on a political decision, one in which local governments have space to experiment.

Some of the innovative rural mobility modes identified across OECD countries include:

- **Shared mobility**. The local shared mobility offer is an important building block to complement the existing core transport network. Different approaches exist and their utility depends on population density characteristics in each rural community. They include rural demand-responsive transport, community or volunteer transport, ridesharing, carsharing and autonomous buses.

- **Active mobility**. Cycling in rural areas is valuable as a standalone mode of transport or to bridge the last mile(s) in order to access both branch services and the core transport network. This mode of transport also includes pedibuses, cyclobuses, collective walking and cycling "school buses".
- **Integration of mobility services**. Co-ordination between core bus lines and local branch networks, including regular bus services, flexible last-mile services and other shared and active transport options are crucial to improve travel experiences and accessibility in rural areas. Co-ordination mechanisms used in OECD rural areas include:
  - *Rural mobility hubs*: a location for switching modes of transport, designed to improve inter-modality and integrate private transport modes and feeder services to direct bus and rail lines.
  - *Mobility as a service*: a digital system that integrates different transport, information and payment services into a smooth customer interface.

Unfortunately, the rise of new mobility solutions, including shared and active mobility forms and multimodal integration, currently happens within the context of long-standing deficits in rural transport provision.

Source: ITF (2021[15]), *Innovations for Better Rural Mobility*, https://www.itf-oecd.org/sites/default/files/docs/innovation-rural-mobility.pdf.

Rural areas in Colombia are diverse in terms of income and settlement pattern structure, which allows for exploring different options for mobility. Some close to large cities (e.g. around Bogotá, Cali or Medellin) could adopt innovative options of shared mobility (e.g. carsharing or community transport) to palliate the increasing cost of delivering public transport. Others can formalise unconventional active mobility solutions, like the pedibus or boat bus for the case of some regions in the pacific. The pedibus is a form of school transport for children who, supervised by adults, walk to school in much the same way a school bus would drive them (e.g. rural areas in France or the Netherlands). A vélobus or cyclobus is a 10-seater bicycle used in several villages.

Colombia has already passed a law to recognise different types of transport modes for children to reach schools (see the section on education below). This effort of formalising alternative mobility options should also be extended to general commuting in the communities. As the population is sparse and economies of scale low, there is not currently the same political or institutional prioritisation or motivation to solve mobility issues for rural areas as there is for urban areas. Thus, innovative mobility initiatives in rural areas are fragmented and communities are more likely to have to push for change, compared to urban areas where there is already a strong desire for new outcomes and an appetite for new solutions, including among policy makers (ITF, 2021[15]).

Therefore, Colombia could find a guide in rural policy mobility frameworks across OECD countries and regions to set planning instruments for alternative and cost-efficient mobility structures for rural areas (e.g. cyclobus). Some of them include comprehensive rural mobility policies at the subnational level (Flanders, Belgium), obligations to produce the rural equivalent of Sustainable Urban Mobility Plans (e.g. Slovenia) and organisational frameworks that provide national and regional coverage, assigning minimum service levels (Catalonia, Spain)

Today, physical connectivity is not enough to allow people to fully benefit from economic opportunities and help them reach new markets. The increasing digitalisation trend is shifting the way people and firms reach new markets with local products and acquire inputs, access education and training as well as other government services.

Unleashing the potential of connectivity to close digital divides in rural areas

High-quality fixed and mobile communication networks are crucial for the further digital transformation of Colombia. This has been recognised by Law 2108 of 2021, which considers access to broadband connectivity as an essential and universal public service. Connectivity in rural areas has spill-over effects across all sectors of the economy and allows people to access healthcare, education and other government services (e.g. justice) as well as participate in democracy. High-quality connectivity in rural areas can help mitigate the penalty of distance in some communities in terms of transport costs and prepare rural economies for technological change (e.g. drones, autonomous machines) to increase their resilience and efficiency.

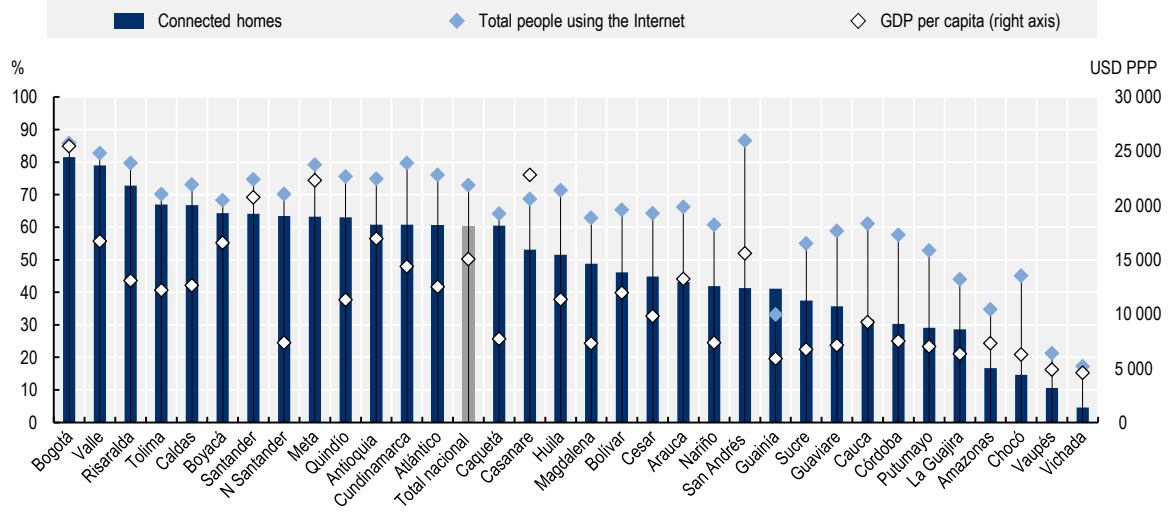
A lack of access to connectivity in an increasingly data-driven economy and society increases not only digital divides but also social and economic divides. Connectivity gaps in rural areas may undermine policy objectives in areas such as social assistance or education and reduce regional attractiveness, for example for young people and the private sector. Overall, this gap contributes to a decrease in quality of life in the country and increases regional inequalities (OECD, 2018[16]).

The state of connectivity in rural areas in Colombia

According to the official territorial classification of Colombia in 2021, only 28.8% of households located in rural areas have broadband access (fixed and/or mobile), in contrast with 70.0% in urban areas (DANE, 2022[17]). Moreover, in Colombia, departments with lower income per capita tend to have lower subscription rates (Figure 4.3), which are mainly those with a higher degree of rurality (Chapter 2). One of the reasons for this trend is that the prices of communication services represent a greater hurdle for lower-income households. As noted in Chapter 2 of this review, income in rural areas is generally lower compared to urban areas.

Figure 4.3. Poorer and more rural Colombian departments have a lower share of connected households and are making less use of the Internet

Share of households with fixed and/or mobile broadband access (“connected homes”) and share of people using the Internet (left axis, 2021) and USD PPP GDP per capita (2020) in Colombian departments (right axis)

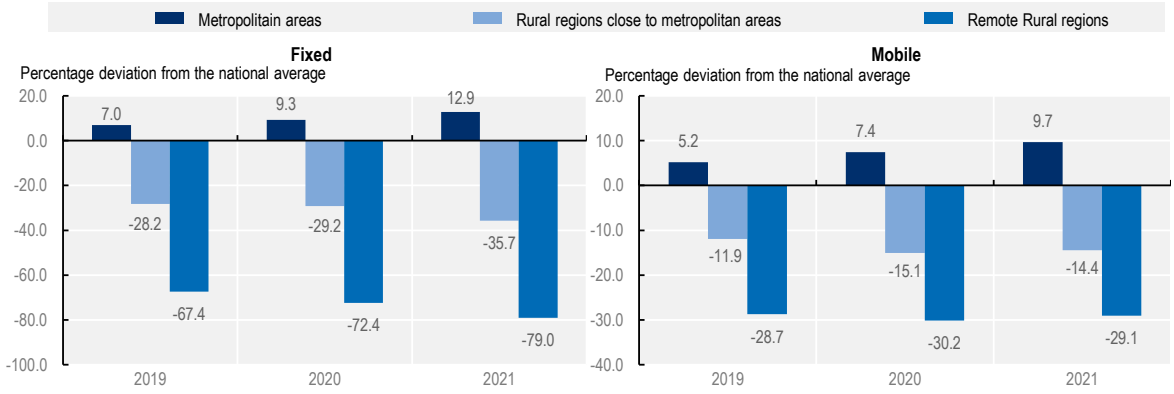


Note: “Connected homes” data were collected for the National Quality of Life Survey (*Encuesta Nacional de Calidad de Vida*, ECV), OECD.
Source: DANE (2022[17]), *Encuesta Nacional de Calidad de Vida (ECV) 2021*, https://www.dane.gov.co/files/investigaciones/condiciones_vida/calidad_vida/2020/Boletin_Tecnico_ECV_2020.pdf (accessed on 26 October 2021).

Apart from the low share of subscriptions in rural areas, the quality of service in rural areas in terms of speed also lags significantly behind metropolitan areas. Therefore, even with access to broadband, many of the possible services available online might not be fully and easily accessible and the opportunities to tap the potential of connectivity necessarily remain unused (Figure 4.4). Network speeds matter as businesses need fast and reliable connection speeds to process payments and orders, participate in online commerce and stay competitive in an increasingly digital economy (OECD, 2018[16]). Furthermore, speeds are important for the use of key information and communication technology (ICT) tools, such as cloud computing and many other data-intensive activities and demanding applications across sectors for example industry automation. This is especially the case when it comes to such an important sector as agriculture in Colombian rural areas, which is currently undergoing far-reaching productivity shifts worldwide due to technological developments such as the Internet of Things (IoT). High speed is also crucial to allow effective access to virtual education and healthcare, for example to leverage the potential of augmented reality or medical imaging, and allow remote working.

Figure 4.4. Colombian rural areas significantly lag behind speeds experienced in cities

Speeds experienced in metropolitan regions, regions near a metropolitan area and regions far from a metropolitan area; fixed (left) and mobile (right)



Note: Territorial classification follows the OECD regional classification (see Chapter 2), which looks at the degree of rurality in small regions (Territorial Level 3, TL3). The graphs present the information according to the following grouping: metropolitan regions (large metro region+ metro region), regions near a metropolitan area (non-metropolitan region near a metropolitan region) and regions (non-metropolitan region with access to a small/medium city + non-metropolitan region remote).
Source: Ookla (n.d.[18]), *Speedtest*, https://www.ookla.com/ookla-for-good/open-data.

Amplifying the impact of measures taken and existing networks to provide rural areas with connectivity

The Colombian government has recognised the rural-urban connectivity divide and has taken measures to narrow it. To this end, three major initiatives have been implemented: i) the creation of a national fibre backbone that has connected an important number of Colombian municipalities; ii) the Universal Sustainable Access Project (*Proyecto de Acceso Universal Sostenible*) that supports public broadband access, called *Zonas Digitales* (Digital Zones); and iii) the project *Acceso Universal para Zonas Rurales that installed Centros Digitales* (Digital Centers) to connect people in rural areas with no personal broadband access.

The National Optical Fibre Project (*Proyecto Nacional de Fibra Óptica*) deployed a fibre optic backbone (Azteca Network) through a governmental contribution agreement, with the aim to connect most Colombian municipalities. This backbone provides an important foundation for connecting consumers and businesses.

In particular, the rollout to remote municipalities can help close the important digital gap between urban and rural areas in Colombia. Through this initiative, the number of connected municipalities grew from about 287 in 2010 to around 1 073 municipalities in March 2022 (Government of Colombia, 2022[19]).

Nevertheless, this Azteca fibre optic network only reaches the centre of municipalities, with no coverage in the surroundings, and also needs to be extended to last-mile municipalities. Currently, some of the existing operators do not connect to or use the fibre backbone, partially due to quality-of-service (QoS) requirements or because they possess their own infrastructure in the respective area. Additionally, the cost of connecting to the Azteca network may be very high and subject to individual negotiations, which may represent a barrier, especially for community-led initiatives (Government of Colombia, 2022[19]). The Commission for Communications Regulation (*Comisión de Regulación de Comunicaciones*, CRC) has been working on solving the regulatory QoS issue. For example, where last-mile deployments of fixed network infrastructure are not feasible due to geographic challenges in certain rural areas, fixed wireless solutions could be envisaged. In addition, consultations could be facilitated between Azteca and ISPs[1] of all sizes in Colombia in a view to setting interconnection fees in a way that results in better use of the fibre backbone, and this in particular in rural areas of Colombia in particular.

Another major initiative by the Colombian government is the Universal Sustainable Access Project which amounts to more than COP 27 billion (USD 7.3 million)[2] and aims at installing solutions for public broadband access called *Zonas Digitales.* In these zones, anyone is allowed free broadband access from a smartphone, tablet or laptop 24 hours a day. *Zonas Digitales* have the capacity to serve at least 10 users simultaneously at a required minimum speed of 9 Mbps. Overall, the project was planned to provide connectivity through 1 300 *Zonas Digitales*, benefitting 378 municipalities, distributed in 20 departments[3] of the country (MinTIC, 2019[20]; 2019[21]; 2021[22]).

However, such a plan to extend the *Zonas Digitales* has faced major challenges. In 2022, only 9 of these first 1 300 *Zonas Digitales* are up and running as to the termination of the contract's express terms.[4] In the first phase of the plan, only 10 of the departments that benefitted from the *Zonas Digitales* (i.e. 50%) have beenbelow the national average of connected homes.[5] The five departments with the lowest share of connected homes (Amazonas, Chocó, Guainía, Vaupés, Vichada) have not been included in the initiative. As a consequence, the Executing and Connecting Plan, Phase 2 (*Plan Ejecutando y Conectando, Phase 2*), also initiated in June 2020, put forward the installation of 250 additional Digital Zones in 97 municipalities of 14 Colombian departments and the Capital District. These 250 additional zones are currently up and running (Government of Colombia, 2022[19]).[6] In addition, the *Plan Ejecutando y Conectando, Phase 2* included the reconnection of 145 *Zonas Digitales* from the Universal Sustainable Access Project.

The National Rural Connectivity Plan (*Plan Nacional de Conectividad Rural*) aims to extend connectivity provided through public access solutions (MinTIC, 2019[23]). In line with this plan, the project for Universal Access to Rural Areas (*Acceso Universal para Zonas Rurales*) aims at providing connectivity through 14 750 so-called Digital Centers (*Centros Digitales*) throughout all Colombian departments until 2031, for a value of around COP 2 138 billion (USD 578.6 million). The project was awarded to operators Comcel and UT Centros Poblados in December 2020 and was divided into two regions (A and B). The project aims at allowing economies of scale to reduce the costs of installation, operation and maintenance of connectivity for rural areas.

In *Centros Digitales*, connectivity will be provided through WiFi solutions, thereby avoiding time restrictions for the use of the service and significantly reducing logistical and operational costs. Ninety-eight percent of *Centros Digitales* to be installed are comprised of official rural educational institutions located mainly in areas classified as populated centres, The remaining 2% will be installed in "special cases", i.e. in independent premises of ethnic communities, military units, healthcare posts, Territorial Training and Reincorporation Spaces (ETCR) and National Natural Parks (PNN), among others.

Each *Centro Digital* has two Internet access points: one is located inside the educational institution benefitting the educational and academic community and the other outside, to be used by the inhabitants of the surrounding area. As of January 2022, only 10.2% of the planned Digital Centers (1 515) are up and running. Extrapolating the current speed of deployment, there is not much leeway for delays to have all 14 750 planned centres up and running by 2031.

While the *Zonas Digitales* and *Centros Digitales* are increasingly providing broadband access to the unconnected communities, these programmes have to ensure that contractors are complying with their obligations and objectives. This is especially the case in light of programme funding, the majority of which is enabled through the Single Information and Communication Technology Fund (*Fondo Único de Tecnologías de la Información y las Comunicaciones*, or *Fondo Único de TIC*) by communication operators (see below).

Furthermore, the focus should also be put on how continuity of *Zonas Digitales* and *Centros Digitales* initiatives can be ensured, and this across legislative periods. In the predecessor programme Live Digital Plan (*Plan Vive Digital*), so-called Live Digital Points (*Puntos Vive Digital*), were deployed between 2010 and 2018. It seems that this programme suffered particularly from maintenance issues. Some of the installed free Internet access points have been used less often than intended due to the unreliability of the service. In addition, many of the access points have not been kept up and running after the regional authorities had to take care of the upkeep of the service in 2018 due to lack of government funding at the national level. In July 2019, only 56 of the 949 installed *Puntos Vive Digital* (5.9%) were up and running (Government of Colombia, 2022[19]; Ancestra, 2019[24]).

Finally, it has to be acknowledged that these programmes are not able to substitute direct household or business fixed or mobile subscriptions for the population that is currently not connected. As Figure 4.3 shows, there is a relationship between the share of connected households and the share of broadband usage. Home connections are indispensable to drive connectivity in a sustainable way. These measures should be further improved and comprehensive policies (e.g. National Rural Connectivity Plan) should be strengthened to expand high-quality broadband access to complement public broadband access point programmes.

Community networks and local ISPs as additional drivers of rural connectivity

Community networks

The promotion of community networks may be considered to foster rural connectivity and complement national efforts. Community networks are bottom-up approaches that build on local knowledge and initiatives (i.e. grass-roots movements) and can play a complementary role with respect to national service providers to bridge connectivity divides, particularly in remote areas or those with difficult access (APC, 2020[25]; OECD, 2021[26]). Locally-led efforts can benefit from greater knowledge of local geographic, economic and social conditions as well as direct co-operation with local communities and governments.

Nevertheless, to date, there are almost no successful community-led initiatives in Colombia (Government of Colombia, 2022[19]). In Colombia, Article 8 of Law 1978 (ICT Modernization Law) provides for the possibility to exempt some spectrum bands from payment with the purpose of extending coverage in rural areas, which could facilitate the creation of these types of networks. Moreover, an important step in the right direction has been made by the National Spectrum Agency (*Agencia Nacional del Espectro*, ANE). The ANE, in its five-year Spectrum Management Master Plan published in February 2022, acknowledges “non-traditional spectrum management models” and is considering, among other things, spectrum sharing and its secondary use to promote community-led initiatives (ANE, 2022[27]).

Institutional framework conditions are often necessary to support bottom-up initiatives that seek to expand connectivity in rural and/or remote areas. Other countries of the region have already promoted framework

conditions to facilitate the expansion of these networks. For example, in Mexico, the rise of community networks has been facilitated by changes brought by the 2013 telecommunication reform and implemented with the 2014 sector law (*Ley Federal de Telecomunicaciones y Radiodifusión*, LFTR). The licensing regime changed to a simple class-licensing regime (except for resource scarcity restraints, i.e. spectrum), where spectrum licences are granted for a determined use (commercial, public, social use). In Mexico, social use spectrum licences include community and Indigenous networks with non-profit purposes (OECD, 2017[28]). In Brazil, the communication regulator (Anatel) explicitly recognised community networks as an option for Internet access in Brazil (Anatel, 2020[29]; OECD, 2021[26]).

It is important to not only allow for the possibility of these initiatives but also to create a benevolent space for their development. Colombia could consider facilitating the creation of community networks by:

- Promoting interconnection with already deployed fibre optics and other networks.
- Allowing for the deployment and operation of community networks by non-profit entities through lower licensing costs and lower bureaucratic burdens around compliance with administrative requirements to maintain the networks.
- Considering the use of the *Fondo Único de TIC* for community-led initiatives, if their creation caters to more sustainable access to connectivity than other projects financed by the fund.
- Implementing the measures set out in the Spectrum Management Master Plan to provide community-led initiatives with the necessary spectrum without delay.

Small ISPs

Colombia possesses a rich landscape of ISPs that can help extend connectivity in areas where bigger ISPs do not see a positive business case or do not have sufficient onsite expertise. The number of these small ISPs ranges between 400 and 500 and their networks can be found in almost all municipalities throughout the country (Government of Colombia, 2022[19]). Often, these small ISPs play an important role in last-mile connectivity, i.e. in enabling the connection to the premises. Increasingly recognising small ISPs statistically will lead to a more coherent picture of communication services in Colombia.

Colombia may consider boosting the potential of these small ISPs by including them when designing its policy and regulation. This may include an easy and cost-efficient interconnection with other networks as well as lower bureaucratic burdens. Resolution 175 of 2021 was a start in the right direction, as it provides for the reporting of revenues and access numbers by small ISPs. In addition, Law 2108 of 2021 enables small ISPs in certain cases to be exempted from the annual contribution to the CRC and the *Fondo Único de TIC* (Congreso de Colombia, 2021[30]).

Getting local governments involved in boosting rural digital transformation

Local governments have an important role to play in lowering barriers to communication infrastructure deployment. Important barriers exist on the local government level and slow down the deployment of communication infrastructure, making it more costly (Government of Colombia, 2022[19]). Those barriers include:

- Lack of clarity regarding land use restrictions, prohibiting infrastructure deployment in public spaces, in areas of cultural, heritage or conservation interest and height limits.
- Additional procedures, for example approval procedures, defined locally for the deployment of networks, which may represent excessive burdens and can delay or impede network rollout and the deployment of communication infrastructure.

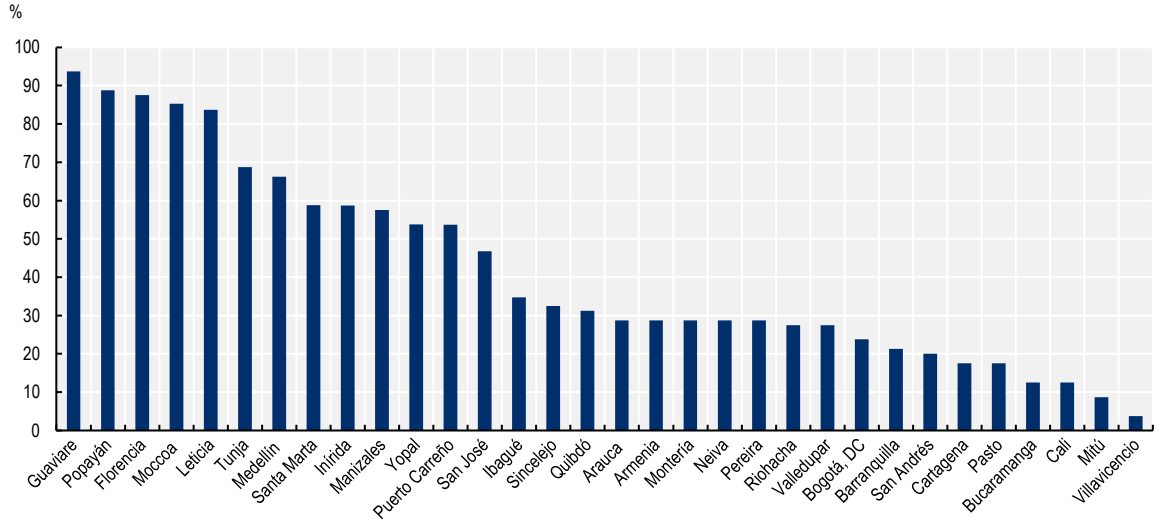
While some of these restrictions of municipalities on infrastructure deployment may be justified and reasonable, deployment barriers at the local level need to be reduced to a maximum extent and rights of way should be streamlined. One effective way to do so would be the provision of legal certainty to those

involved in the deployment of infrastructure and reducing the burden of installation procedures and costs associated with such deployment. MinTIC currently employs advisors at the departmental level who support infrastructure deployment and are able to provide support for the infrastructure deployment policies in municipalities. In addition, technical advisory work to support municipal authorities may also be established by the ANE and the CRC.

A laudable development is the creation of the favourability index for the deployment of telecommunication infrastructure in the country's capital cities (*Índice de favorabilidad al despliegue de infraestructura de telecomunicaciones en las capitales del país*) by the CRC to compare the ease of communication infrastructure deployment in the country's cities. The index provides an overview of which capital cities in Colombia are the easiest to deploy infrastructure in and serves as a starting point for local authorities to identify the cities that would require support in the expansion and improvement of service coverage. Furthermore, corresponding to the legal mandate in Article 309 of Law 1955 of 2019, the CRC has been promoting the accreditation of municipalities with respect to the absence of barriers to deployment. Among others, the index is also showing the number of accreditations or requests of accreditations of municipalities in the respective department. The index for capital cities and the accreditation process for municipalities put the different capital cities and municipalities in competition as they increase transparency on areas with the lowest barriers to infrastructure deployment in Colombia. The index indicates, among others, that 34.3% of capital cities in Colombia have a rating that is above 50% of deployment favourability.[7] More than 65% of the capital cities have regulations that promote the deployment of infrastructure. Nine capital cities have been identified by the CRC to have a deployment favourability rating below 25% (Figure 4.5) (CRC, 2022[31]).

Figure 4.5. Only 65% of capital cities can be said to promote broadband infrastructure deployment

CRC favourability index for the deployment of telecommunication infrastructure in the country's capital cities, February 2022



Source: CRC (2022[31]), *Índice*, https://www.crcom.gov.co/es/micrositios/indice (accessed on 28 January 2022).

Further mechanisms to ease infrastructure deployment can be drawn from other good practices across OECD countries. Spain, for example, established a mechanism to better co-ordinate different levels of government responsible for urban planning and broadband infrastructures. The country's General Telecommunications Law allows for an evaluation of a municipality's management instruments for infrastructure deployment. Municipalities need to obtain a binding report from the Spanish Ministry of Energy, Tourism and Digital Agenda. The ministry must examine the management instruments and whether they comply with measures of the General Telecommunications Law.

Many OECD countries aim at extending and improving access through measures to streamline rights of way. Administrative processes may be burdensome and the processing times for deployment applications submitted to municipalities may delay network expansion. Approval procedures often require approval from several different public authorities. Streamlining these procedures and rights of way, e.g. in the United States (US) (Box 4.2) can help reduce the cost and speed up the process of network deployment.

Box 4.2. Streamlining of rights of way in the US

An example of an interesting regulatory action to simplify rights of way is the Federal Communications Commission (FCC) Order, *Accelerating Wireless and Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment,* adopted on 26 September 2018 in the US. The decision clarifies the FCC's views regarding the amount that municipalities may reasonably charge for small cell deployment given the practicalities of 5G deployment and the importance of 5G to the US. In particular, the FCC declared that pursuant to Section 253 of the Communications Act, fees should be a "reasonable approximation of the municipalities' costs". In offering guidelines for determining this value, the FCC cited the rules of 20 states that limit upfront pole fees to USD 500 for use of an existing pole, USD 1 000 for the installation of a new pole and recurring fees of USD 270.

Source: FCC (2018[32]), *FCC Facilitates Wireless Infrastructure Deployment for 5G*, https://www.fcc.gov/document/fcc-facilitates-wireless-infrastructure-deployment-5g (accessed on 9 October 2018); OECD (2019[33]), "The road to 5G networks: Experience to date and future developments", https://doi.org/10.1787/2f880843-en.

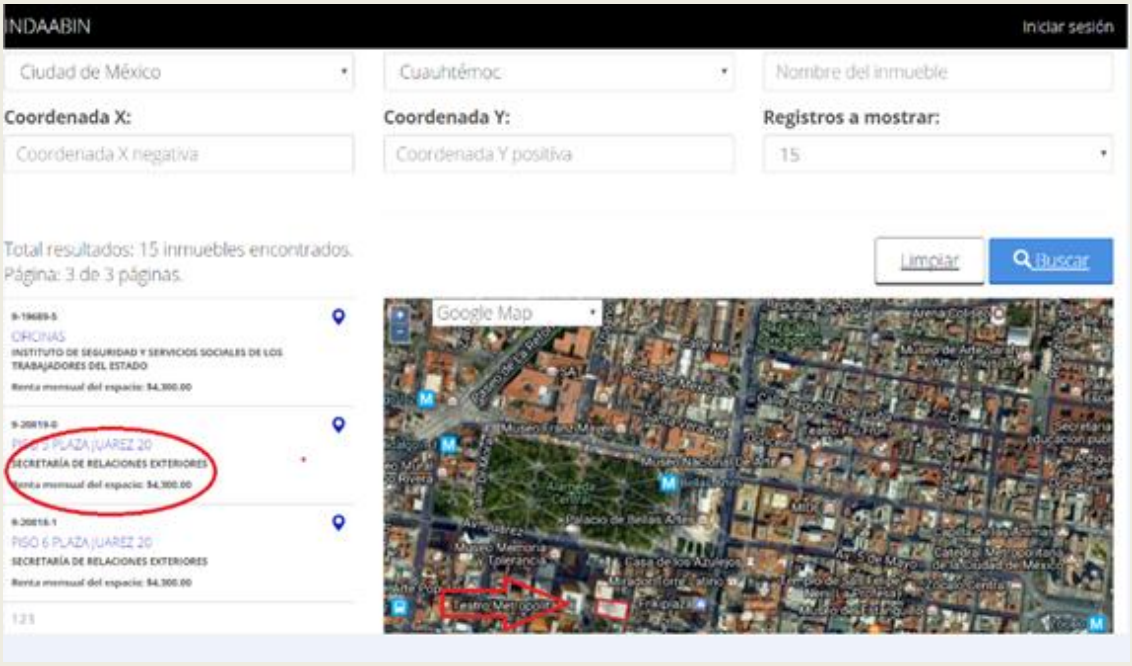
A further measure to facilitate infrastructure deployment in Colombia is to increase transparency on potential locations for communication infrastructure deployment and also where existing communication assets are already deployed. The determination of locations and existing infrastructure are critical time factors in rolling out broadband infrastructure. For example, Colombia could consider establishing a one-stop online portal that georeferences publicly owned buildings available for lease to allow concessionaires to deploy communication infrastructure. This system can follow the example of Mexico's National Information System of Telecommunications Infrastructure, which provides an inventory of public assets with the aim of revealing the availability and status of this infrastructure in order to increase efficiency in deploying telecommunication networks (Box 4.3).

Box 4.3. Mexico's projects within its passive infrastructure programme

In Mexico, the Secretariat of Infrastructure, Communications and Transportation (*Secretaría de Comunicaciones y Transportes*, SCT) issued an interagency agreement that allows for close to 110 000 state-owned structures to be used and shared, by concessionaires (licensees), permission-holders and infrastructure developers, as passive infrastructure for telecommunication networks under non-discriminatory, equal-access and non-exclusive conditions. Information pertaining to the relevant

properties, including georeferenced location as well as physical, economic, technical, safety and operational conditions and the market value, are published on an online platform called ARES, operated and managed by Institute for National Assets (*Instituto de Administración y Avalúos de Bienes Nacionales*, INDAABIN). Interested parties can use the platform as a search engine and indicate their interest in a particular building and INDAABIN will serve as a one-stop portal for all requests. Apart from the 110 000 federal buildings, other interested public institutions, for instance at the municipal level, can become a member of the portal and present their properties that fulfil the necessary technical conditions.[8]

Figure 4.6. Online platform ARES on infrastructure for telecommunication networks



This initiative is part of the SCT's efforts to synchronise the involvement of local and state authorities through a passive infrastructure programme containing parallel projects with the intention of lowering the costs for infrastructure deployment and increasing coverage across the country.

Source: OECD (2017[28]), *OECD Telecommunication and Broadcasting Review of Mexico 2017*, https://doi.org/10.1787/9789264278011-en.

While the CRC and MinTIC issued a set of guidelines ("Code of good practice") for municipalities aiming at increasing co-ordination in urban planning regulations for infrastructure deployment, these guidelines seem to have only had limited impact due to their non-binding nature stemming from constitutional and legal barriers. The CRC and MinTIC may therefore consider developing a campaign to educate local governments and their decision makers and population on the importance and advantages of connectivity and reduce potential concerns. While the Colombian government has endorsed the importance and advantages of broadband connectivity, the digital mindset and spirit need also to take root in the municipal groundwork of the country. If concerns with respect to communication infrastructure stem from health considerations, as for example with respect to electromagnetic fields (EMF), this campaign might even involve the Ministry of Health and Social Protection (MinSalud).

Leveraging mobile broadband services and fixed wireless access to narrow the rural-urban connectivity divide

Mobile broadband services complement fixed broadband services in extending access to connectivity in rural areas. In some low-density areas, mobile networks may be the only network available, as achieving last-mile connectivity with mobile networks tends to be less cost-intense since digging trenches, for example, is not required to reach each individual house or each individual user (reached using mobile spectrum).

Mobile coverage in Colombia is for this reason much more extensive than fixed, relative to OECD countries (OECD, 2021[34]). Furthermore, fixed wireless access (FWA) can help mitigate the "last-mile" challenges in rural and remote areas by using spectrum to reach the end-user. While the large majority of OECD countries currently conceive mobile and fixed communication services as complementary rather than substitutes, FWA is a technology evolving to provide higher broadband speeds and, in some circumstances, may help bridge connectivity gaps in rural areas (OECD, 2021[26]). Nevertheless, it has to be stressed that mobile coverage still requires extensive fibre deployment. Especially with respect to a wide 5G deployment it is indispensable to deploy fibre deeper into mobile backbone networks and to lay fibre to mobile cells in order to offload mobile traffic into fixed networks.

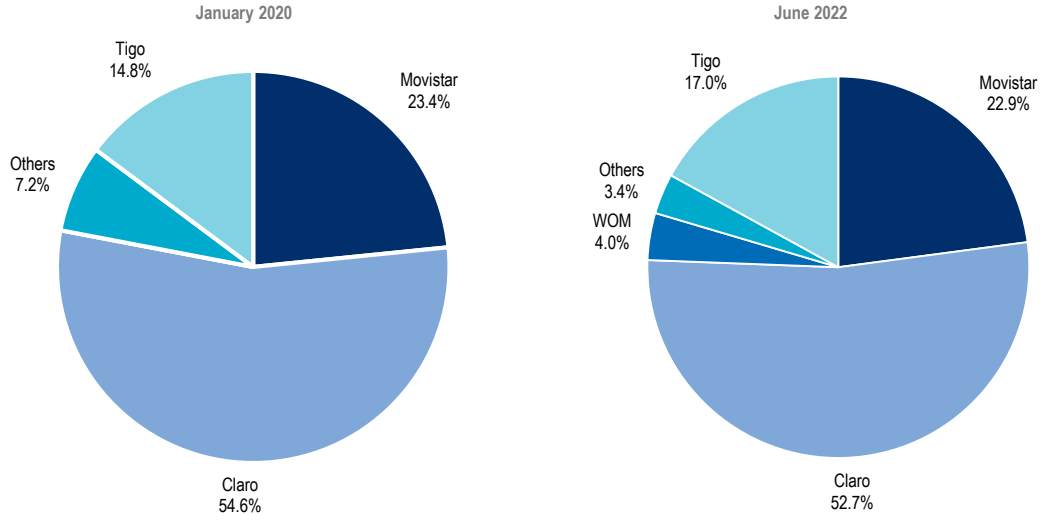
Mobile subscriptions have constantly increased in Colombia. As of December 2021, Colombia counted 73.6 subscriptions per 100 inhabitants, compared to 48.2 as of December 2016, which amounts to an increase of more than 50%. Nevertheless, Colombia lags behind the OECD average of 124.5 subscriptions per 100 inhabitants as of December 2021 (OECD, 2022[35]).

Experience in other OECD countries, such as Mexico, has shown that increased competition may lead to lower prices and in turn to higher demand for communication services (OECD, 2017[28]). The entry of mobile operator WOM may bring additional competition to the Colombian mobile market. WOM started to market its mobile services in Colombia in April 2021, after its participation in the 2019 spectrum auction, the takeover of mobile operator Avantel and a CRC ruling ordering other operators to sign interconnection agreements with WOM. As of June 2022, WOM reports 1 514 388 mobile internet connections, representing a 3.99% market share by mobile data subscriptions, after a bit more than one year of operation (Figure 4.7). In comparison, Avantel, which started operations in Q3 2014, reached less than half of this share (1.6%) almost two years after its market entry (by Q2 2016). Looking at market shares by mobile data revenues, Claro holds 59.6%, while Telefónica Colombia (branded as Movistar) holds 17.6%, Tigo 18.1%, and WOM 3.1% as of June 2022 (Figure 4.8). While the CRC declared the dominance of Claro in the national market for mobile communication services (CRC, 2021[36]), this decision has largely been without measures to decrease market concentration.

An important way to spur competition is through efficient spectrum management. Spectrum enables mobile communication services and is an essential input for mobile networks. It is a scarce resource and its availability to operators is managed by governments and regulatory authorities. The spectrum in the 700 MHz band is, among others, very well suited to increase connectivity in rural and remote areas. The allocation of this spectrum, therefore, has been an important step to extend connectivity in Colombia. The auction for the 700 MHz band has been held at the end of 2019, and Colombia has awarded spectrum to 3 bidders raising COP 5 trillion (USD 1.524 billion). The spectrum granted in the auction was linked to coverage obligations expanding mobile communication services in 3 658 localities in rural areas of the country's 32 departments, including the San Andrés archipelago (Government of Colombia, 2019[37]).

Figure 4.7. While WOM managed to enter the mobile market, 2 players still hold more than 75% of the market share in terms of subscriptions

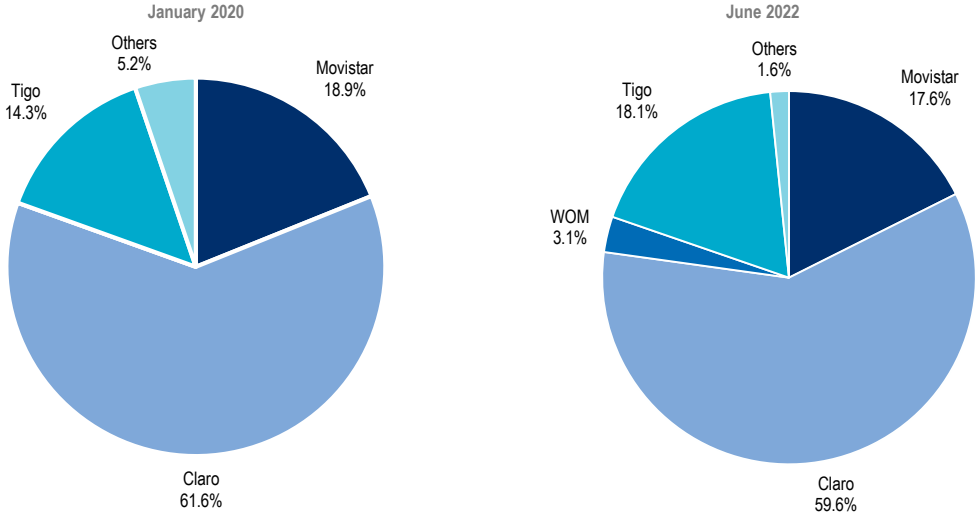
Market shares by mobile data subscriptions in January 2020 and June 2022



Source: CRC (n.d.[38]), *Cifras de los servicios de telecomunicaciones*, https://www.postdata.gov.co/dashboard/cifras-de-los-servicios-de-telecomunicaciones.

Figure 4.8. In terms of revenues, Claro has a market share of nearly 60%

Market shares by mobile data revenues in January 2020 and June 2022



Source: CRC (n.d.[38]), *Cifras de los servicios de telecomunicaciones*, https://www.postdata.gov.co/dashboard/cifras-de-los-servicios-de-telecomunicaciones.

In addition, the assignment of licenses for the use of the spectrum in the 700 MHz band was linked to the technological modernisation of mobile communication networks. While the auction design indeed aimed to increase the social benefit of the auction, it has to be closely followed if the conditions of granting the licenses are to be fulfilled. As of April 2022, Comcel (Claro) had to install their infrastructure in 560 locations, WOM had to deploy their mobile networks in 674 locations and Tigo in 551, amounting to a

total of 1 785 locations. Table 4.1 shows the coverage obligations to be fulfilled by the operators which obtained spectrum in the auction. In terms of actual deployment, operators have not fully met their obligations for the first year which ended in March 2021 (Table 4.2). Colombia should ensure that operators are fulfilling their coverage obligations resulting from the 700 MHz auction.

Table 4.1. In the 5 years following the 700 MHz auction, mobile services are to be expanded to 3 658 rural localities

Number of rural localities as defined in the auction to be provisioned with communication services by operator

Operator	Year 1	Year 2	Year 3	Year 4	Year 5
Tigo		551	540	273	272
Comcel (Claro)	280	280	280	228	228
Partners Telecom Colombia (WOM)	674				
Total locations	**954**	**831**	**820**	**553**	**500**

Source: Information provided by the Government of Colombia (2022[19]), "Answers to OECD questionnaire on rural policy development".

Table 4.2. Operators are lagging in their coverage obligations

State of deployment of Year 1 and 2 obligations resulting from the 700 MHz auction (March 2021); number of rural localities that have been planned, executed, are in process or to be started

Operator	Planned	Executed	In process	To start process
Tigo	551	359	121	71
Comcel (Claro)	560	329	100	131
Partners Telecom Colombia (WOM)	674	648	19	7
Total locations	**1 785**	**1 336**	**240**	**209**

Source: Information provided by the Government of Colombia (2022[19]), "Answers to OECD questionnaire on rural policy development".

The auction was held in view of the ICT Modernisation Law, which modified the use of spectrum to maximise social welfare. By law, social welfare is understood mainly as "the reduction of the digital divide, universal access, the expansion of coverage, the deployment and use of networks and infrastructures and the improvement in the quality of the provision of services to users […]". As such, the objective selection mechanisms carried out by MinTIC for granting licenses for the use of spectrum should encourage investment in infrastructure and maximise social welfare. At the same time, the possibility of establishing coverage obligations as a form of payment for the permission to use spectrum was established. The ICT Modernisation Law furthermore modified the duration of permits for the use of the spectrum, increasing from 10 to 20 years. Operators can request a renewal of the permit for up to the same period of 20 years, generating a new payment to MinTIC.

When planning the auction design of the upcoming auction of the 3.5 GHz band intended to foster 5G commercial services in the country, two key policy issues should be taken into account simultaneously: coverage and competition. Coverage obligations – as used in the 2019 auction – are common across OECD countries and can further contribute to broader coverage of the population in rural and remote areas. When designing the auction, it should be ensured, however, that the extent of the coverage obligation is not an impediment for certain actors to bid in the auction.

Furthermore, it is good practice for the auction to establish a transparent mechanism to allocate spectrum in an efficient way while avoiding the auction being used to maximise public revenues from that auction. It

is further recommended that the conditions for the renewal of the licence are known well in advance and that the renewal follows a transparent process.

It is also advisable that the upcoming auction does not suffer from significant delays in order to enable the best use of available spectrum resources. This also holds true in light of the growing mobile broadband market and the increase of mobile applications in markets.

On 19 October 2021, MinTIC, assisted by the National Spectrum Agency (ANE), renewed the spectrum use licenses in the 1 900 MHz band for Claro and Telefónica Colombia in Resolutions No. 02802 and 02803. In accordance to these resolutions, operators Claro and Telefónica Colombia will continue to provide their mobile communication services in these spectrum bands. In turn, they will have obligations to update their technology to improve the coverage and quality of their services. Revenues will be directed to the *Fondo Único de TIC*. The resolutions have been subject to appeal for reconsideration by the operators (MinTIC, 2021[39]). To resolve the appeals, MinTIC reassessed the renewable fees based on the parameters established by the ANE together with the Comptroller General of the Republic (*Contraloría General de la República*). The reassessment detected risks generated by the high price for the spectrum determined by MinTIC and showed that proposed renewal fees in Colombia were above international benchmarks. The license renewal fees to be paid for the respective spectrum use licenses by Claro and Telefónica Colombia were subsequently reduced by 19% (dpl news, 2022[40]).

In general, it is good practice to set rules for license renewals well in advance to give operators enough time and legal certainty to enable them to plan their network investments. In addition, license renewals should be transparent, which can be achieved by publishing the methodology for the valuation of the related spectrum. However, the ministry is not obliged to disclose the methodology in public consultations used to determine spectrum valuation for license renewal in Colombia. For the most recent renewals, MinTIC thus only provided a methodological guide explaining the different approaches that can be used for spectrum valuation to allow operators to develop their own analysis. Finally, licence fees should not be set at overly excessive prices, i.e. so that they do not maximise fiscal revenues but rather increase overall welfare in the country, given the positive spill-over effects of connectivity to other sectors of the economy.

Boosting rural connectivity through innovative regulation

Effective and innovative regulation is essential to keep up with the fast-paced technology developments of the communication sector and to extend connectivity. The Colombian communication regulator CRC therefore plays a critical role in facilitating and enabling broadband deployment in both urban and rural areas. The CRC has initiated modifications to the ability to share infrastructure with other service providers such as electricity providers. This regulation aims to reduce the cost of infrastructure deployment. In the first phase, the regulation focused on electricity infrastructure. In the second, the measure will add the potential use of other infrastructures, such as hydrocarbon infrastructure.

The CRC also initiated a regulatory sandbox programme in order to create flexibility for the implementation of projects that may generate social benefits. Regulatory sandboxes are a structured form of regulatory flexibility that enables selected firms to test innovative products or services with minimal regulatory requirements (Attrey, Lesher and Lomax, 2020[41]). While there has been a comparatively high number of proposals (23), only 3 of the proposed projects have finally been accepted by the CRC. To date, the projects selected to be part of the regulatory sandbox are at the stage prior to the start of experimentation. Two projects stand out with respect to expanding connectivity in rural areas:

- Telefónica Colombia started to use the opportunity to carry out a 4G Internet project in rural areas using Open RAN technology. However, the company stopped the project following an internal decision. Open RAN technology may increase the flexibility and efficiency of the network.[9]
- The mobile operator Millicom, operating under Tigo Colombia, collaborates with Parallel Wireless to help deploy 4G services in more rural parts of the country using Open-RAN-compliant architecture. Plans initially called for 362 sites, with service provided through Tigo Colombia. The

first phase of deployment, which employs 7.2 (an O-RAN Alliance split option) radios, is expected to be completed by March 2022 (Fierce Wireless, 2021[42]). However, the Tigo O-Ran project is not part of the sandbox environment.

While its programme has been one of the first regulatory sandbox initiatives in Latin America, the CRC may consider ways to enable more companies to experiment with projects that may further the deployment and usage of communication services in rural areas. This is especially the case with respect to community-led initiatives. With the aim of extending connectivity in rural areas. This may involve the reduction of the administrative burden for community-led initiatives and potential regulatory sandboxes.

Ensuring that taxation and sectoral fees do not hamper the adoption of communication services in rural areas

Currently, multiple taxes are imposed on the communication sector and on the consumption of communication services.[10] Communication service providers have to pay a special periodic fee to finance the *Fondo Único de TIC,* which is used to execute investment projects that have the purpose of expanding broadband Internet connectivity and is administered by MinTIC. MinTIC determines the value of the periodic fee, which may not be higher than the amount of the periodical consideration set on the date of entry into force of said law (25 July 2019). In June 2020, MinTIC issued Resolution No. 0903, which provides that, as of 1 July 2020, the periodic fee for the *Fondo Único de TIC* is reduced from 2.2% to 1.9% on gross income. While the contributions to the *Fondo Único de TIC* have been decreased – which is a laudable development – they continue to be significant and means should be identified to reduce them as contributions could exceed MinTIC's needs. In addition, *Fondo Único de TIC* resources must be channelled to where they best benefit society. For example, initiatives financed by the fund, such as *Zonas Digitales* and *Centros Digitales* (see above), are laudable but do not represent a suitable substitute for people being connected in their homes or with their own high-quality connection.

Finally, general taxes, both on the national and municipal levels, add to sector-specific fees. At the national level, corporate tax amounts to a total of 35%. In addition, any financial transaction is taxed with 0.004% of its amount. At the municipal level, an industry and commerce tax is levied and amounts to 0.2-0.7% for industry activities and 0.2-1% for commercial and service activities. Several other municipal taxes add to this, such as a property tax or specific taxes depending on each municipality.[11]

All these taxes and fees impact the prices of communication services and reduce the resources available for the communication sector. Thus, they may hamper a broad adoption of communication services, in particular among low-income groups, and may have detrimental effects on innovation and investment. This is especially problematic since the communication sector creates many positive spill-over effects throughout the economy.

Consumers additionally have to bear the burden of relatively high prices for terminal devices. For handsets, the Colombian government introduced a value added tax (VAT) exemption for entry-level handsets in order to increase the adoption of ICT services. Currently, this exemption holds for handsets that cost up to COP 836 088 (approximately USD 223).[12] This measure seems to have increased the demand for smartphones in Colombia.

The former investments in transport and broadband infrastructure are a key pillar for rural development in Colombia but, in isolation, they do not ensure greater well-being for rural communities. Improving broadband connectivity needs to come with policies to increase digital skills and education. Moreover, increased quality healthcare and education provision can help ensure that spill-over effects from infrastructure and broadband network expansion can translate into greater regional attractiveness for people and companies and greater well-being for rural communities. Overall, the next two sections review the main education and healthcare policy initiatives for Colombian rural areas and present some recommendations for improving access, quality and governance.

Improving education in rural areas of Colombia

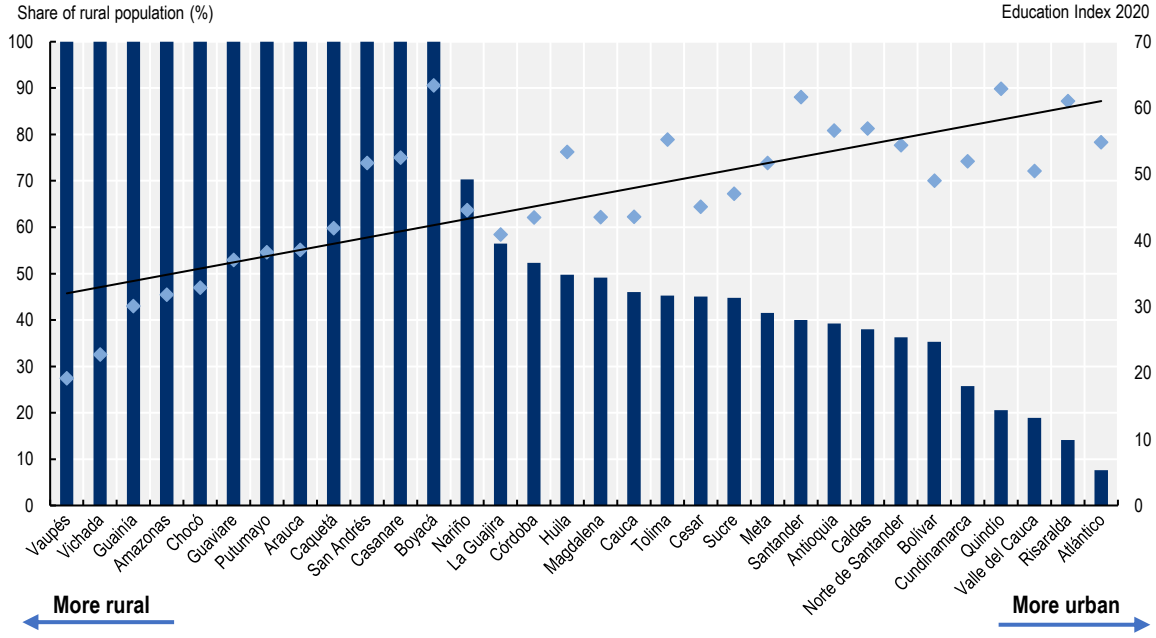
Human capital is a critical factor influencing regional growth and development throughout all types of OECD rural regions (OECD, 2017[28]). A learning society that is able to absorb as well as create knowledge is at the core of local development and competitiveness as it becomes an engine of innovation and resilience.

The state of rural education in Colombia

National policies in recent years have aimed to reduce urban-rural disparities in education and to improve access and quality of education in rural areas. These efforts have also resulted in the approval by the National Congress of the largest budget in Colombian history for the education sector in 2021. Budget priorities include access to education and improving education infrastructure. However, educational gaps between rural and urban areas are still significant, due to limited educational infrastructure and accessibility in rural areas. The impact of these challenges on students' learning – exacerbated by the COVID-19 pandemic – affects their educational trajectories and future perspectives, particularly with reduced access to higher education.

Overall, regions with a higher degree of rurality in Colombia register lower educational outcomes (Figure 4.9). The eight regions with lower education performance, measured with the DNP's education index, are all considered rural. However, some rural regions reveal good performance in education, which is the case of Boyacá, in the centre of the country, with the highest index of the 32 departments (63.4). Nevertheless, the regions that register the lowest mathematics and reading scores in the national secondary test, Saber 11, are all rural (Amazonas, Vaupés, Vichada) (DNP, 2021[43]).

Figure 4.9. Education performance by degree of rurality at departmental level in Colombia



Note: The "education index" includes the net coverage of secondary and transitional education (ratio between the number of students enrolled in an educational level who have the theoretical age to attend and the total population corresponding to the same age in 2020) and the *Saber 11* score (average score of the department in the generic competencies module [mathematics and language] of the *Saber 11* tests in 2020). Classification of degree of rurality is according to the OECD regional classification.

Source: DNP (2021[43]), *Resultados Medición Desempeño Municipal 2020*, Dirección de Descentralización y Desarrollo Regional, based on data from the Colombian Ministry of National Education (*Sistema Integrado de Matrícula*) and the Colombian Institute for the Evaluation of Education (ICFES).

The lag in education in rural regions is evident in various outcomes:

- **Accessibility**. Overall, most children and young people who do not have access to education in Colombia come from rural areas and remote regions (70%), using the National Administrative Department of Statistics (DANE) rural classification (Parra, 2021[44]).

  Already from the earliest age, poor access to education in rural areas leads to inequalities in children's preparation before reaching primary school: 40% of children aged 0-5 years in urban areas are enrolled in early childhood development services – provided by the *Instituto Colombiano de Bienestar Familiar* (ICBF) – compared to only 22% in rural areas (World Bank, 2021[45]). The difference is significant considering that 92% of children who receive services in rural areas do so from the ICBF because of the lower supply of private services. Beyond long distances and difficult geographical access, barriers explaining the lower outcomes in education are related to difficulties in physical access, excessive administrative documentation and lack of clarity to access the services. This poses difficulties in the provision of education in an efficient manner.
- **Attainment**. In Colombia's rural areas, the population has 3 fewer years of education than the urban population and only 5.1% of the population over 17 years of age has a higher education degree (DNP, 2015[46]). Education gaps are particularly high for the adult population (25-65 year-olds), whose gap with adults in urban areas is over 4 years. The urban-rural gap in literacy rates of the rural adult population is much higher (7.8 percentage points below the urban rate) than for young people (15-24) (1.5 percentage points) (Table 4.3).

  The country, however, has progressed in reducing educational inequalities in primary school coverage. The percentage of children aged 6-12 who receive an education is practically equal between rural and urban areas (96.2 and 96.6 respectively), while the gap widens among the 13-17 year-olds (81.8% in rural areas compared to 90.7% in urban areas) and 18-23 year-olds (17.6% in rural areas compared to 38.9% in urban areas).
- **Dropout in upper secondary and tertiary education** is higher in rural areas, where 45% of youth aged 18-22 leave school without completing upper secondary education, compared to only 27% in urban areas. Repetition and early dropout rates are particularly high in rural areas among the poorest segments of the population and within some ethnic groups.

Table 4.3. Education indicators by type of areas in Colombia, 2019

Years of education				
	All population	25-65 year-olds	Male (25-65)	Female (25-65)
Rural	5.3	6.1	5.7	6.5
Urban	8.4	10.3	10.1	10.4
Literacy (% of population)				
	15-24 year-olds	25-65 year-olds	+65 year-olds	
Rural	97.7	89.9	67.5	
Urban	99.2	97.7	88.2	
Gross enrolment rates (% of population attending any educational level)				
	3-5 year-olds	6-12 year-olds	13-17 year-olds	18-23 year-olds
Rural	78.5	96.2	81.8	17.6
Urban	88.9	96.6	90.7	38.9

Source: CEDLAS/World Bank (2021[47]), *Socio-Economic Database for Latin America and the Caribbean*, https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/estadisticas/#1496165425791-920f2d43-f84a (accessed on 24 March 2022).

Infrastructure and security are the main issues undermining education in Colombian rural communities

Infrastructural barriers contribute to lower access to education in rural areas. These include a high deficit of road infrastructure as well as limited electricity, digital tools and Internet networks. Educational institutions in Colombia have around 2.3 million active terminals, of which 61% are concentrated in urban areas and 39% in rural areas (Ministry of National Education/MinTIC/CONPES, 2020[48]). The ratio of students to terminals is lower in rural departments and electricity and connectivity problems in rural departments limit the use of the existing terminals. In rural departments such as Chocó, La Guajira and Vaupés, more than 50% of schools do not have electricity. Also, only 8.1% of all rural schools in the country have broadband connectivity, compared to 43.3% in urban areas. In addition, for after-school homework, many children do not have access to the Internet at home or in libraries.

Moreover, the absence of transport services forces many students and teachers to walk long hours to get to school, sometimes in difficult weather conditions and dangerous roads (Arias Gaviria, 2017[49]). In some cases, they have to spend part of the day working in the fields, helping in the family garden or harvesting crops.

Finally, rural education in Colombia has been affected in the past and present by the armed conflict, which is largely rural in nature. In addition to the constant threats and assassinations of rectors and teachers, between 1990 and 2020, there have been 331 cases of violent takeovers or attacks on educational institutions, and rural schools have been an epicentre of forced recruitment throughout the conflict (Rutas del conflicto, 2020[50]).

Lack of staff supply and preparation negatively impacts the quality of rural education

Several rural schools operate under the modality of single-teacher organisation in a multigrade classroom with age heterogeneity. This significantly reduces the academic offer for children in rural departments such as Guainía, Vaupés or Vichada, where they complete just half the learning-adjusted schooling of an average child in Bogotá (World Bank, 2021[45]).

Additionally, educators in rural areas have lower levels of education, with less specialisation, master's or doctoral education (Ministry of National Education, 2020[51]). The frequent geographical isolation of teachers in rural areas limits their possibilities for training and professional development, and thus the quality of their performance.

The COVID-19 pandemic had a stronger negative impact on rural students

Despite the challenge posed by the pandemic for both teachers and students, education systems in OECD countries, including Colombia, managed to adapt to the consequences of the pandemic (e.g. school closures, recourse to distance learning, use of digital and technological tools, etc.). As we will see later, the capacity for innovation and collaborative networking in Colombia has demonstrated the country is capable of providing education beyond formal pre-pandemic education.

However, between March 2020 and February 2021, schools in Colombia had been closed for 115 days, which is 41 days more than the world average (74) and 8 days more than the average for Latin American (107) (UNICEF, 2021[52]). This closure of schools particularly affected rural areas, where the challenges for teachers and students in terms of technology capability and access to digital technologies with a reliable Internet connection were stronger, with less infrastructure, less access to connectivity or electricity, and therefore less likely to access remote learning.

One of the consequences of the COVID-19 pandemic is also the impact on student learning and performance. Data from the ICFES on the Saber 5 tests show that the share of students at or below the minimum reading level in Grade 5 is particularly higher in rural areas, especially since the COVID-19 pandemic (60% before the pandemic and 72% with distance education in 2021) (World Bank, 2021[45]).

Policies and initiatives aiming to improve rural education

At the national level, many efforts are being made to reduce urban-rural disparities in education and to improve access and quality of rural education – including in terms of digitalisation – since the COVID-19 pandemic. However, there are still many challenges and some of the policies are weak.

Efforts have been made to strengthen the rural angle of education policies

The national government has implemented various educational programmes to improve access to education and support greater coverage in rural areas. Since 1999, the Rural Education Project (PER) of the Ministry of National Education seeks to mitigate the problems affecting educational coverage and quality in rural areas by helping to bridge the gap between rural and urban education. The objective of the programme is to increase access to quality education in the rural sector from pre-school to high school, promote retention in the education system and improve the relevance of education for rural communities and their school populations in order to improve their quality of life (Ministry of National Education, 2021[53]).

As part of the requirements of the Integral Rural Reform (IRR) of the 2016 peace agreement, the government approved the Special Plan for Rural Education (PEER) in 2020. This plan seeks mainly to provide comprehensive care for early childhood, guarantee the coverage, quality and relevance of education and eradicate illiteracy in rural areas. As part of this plan, the programme *Escuela Nueva* offers complete primary education to children between 7 and 12 years in rural areas by integrating curricular strategies and fostering teacher education, administrative management and community participation. In higher education, the Generation E Programme supports the enrolment and support of young university students. In 2021, 31 000 of the 249 000 young beneficiaries of the programme were from rural areas.

Colombia has also implemented the "Todos a aprender" programme, which seeks to contribute to the comprehensive development and learning of children from early education and throughout primary school by strengthening the pedagogical practices of teachers – particularly in the areas of language and mathematics – and the pedagogical leadership of teachers' managers. About 33% of students who benefitted are from rural areas and 73% of the schools that participate are rural (around 10 736 out of the 14 512 schools benefitted). The programme also aims to provide teaching materials, including books for students and guides for teachers (Ministry of National Education, 2021[54]).

Moreover, the government developed a rural school transport law in 2020 to guarantee children in remote areas with adequate school transport. The law allows the mayors of the most remote municipalities to contract a non-motorised school transport service (e.g. canoes, donkeys, horses or bicycles) when necessary, as currently many of these transports are used without contracting and therefore without safety conditions.

Other initiatives with positive results for rural education come from civil society and universities, such as learning communities (Box 4.4). The Utopía project by La Salle University seeks to generate educational and productive opportunities for young people from rural and low-income sectors who have been affected by violence, poor education and social exclusion. The project seeks to turn them into agricultural engineering professionals and entrepreneurs who are able to reinvent agriculture and achieve sustainable agricultural reconversion through participatory research and the transfer of new technologies (Universidad de La Salle, 2020[55]).

Box 4.4. Learning communities in Colombian rural areas

Learning communities is an initiative implemented since 2014 through the foundation Entrepreneurs for Education (*Empresarios para la Educació*, ExE), a business alliance that supports innovation, quality and efficiency in the Colombian educational system.

Schools as learning communities are based on the dialogic conception of learning and allow local educational communities – through small groups of students, teachers and families – to identify the main challenges and priorities for each school and propose a plan for action. By 2019, 60 rural schools from Antioquia, Atlántico, Caquetá, Cundinamarca, Putumayo, Santander and Valle del Cauca – including single-teacher, multigrade and age-heterogeneous schools – have been involved in this initiative.

The project's implementation follows a five-phase process:

1. The awareness phase is where all teachers take part in intensive training where the basic outlines of the project are explained, as well as scientific research contributions that demonstrate successful implementations.
2. The decision-making process, in which the entire educational community decides whether to transform the educational centre into a learning community.
3. The "dreaming" phase, in which the community brainstorms on developing a common objective and a collective purpose for school development. Building on the principle of "egalitarian dialogue", the dream (e.g. "a computer for each child", "improving maths" or "a friendly school without conflicts") is a pathway to include all the voices, desires and aspirations in transforming the school.
4. The educational community establishes the priorities for each school and looks for successful strategies to address those challenges.
5. Finally, the plan for action is proposed to move ahead with the transformation.

Some schools as a learning community, such as Monteloro School in Valle del Cauca, have significantly improved the results of their Saber tests in Grade 5 since its implementation. While national scores in the language test did not show considerable changes in 2016-17, the results of the students from Monteloro School showed an improvement. In 2016, 39% of the students scored in the satisfactory level range, while in 2017, after another year of learning community project implementation, this student body percentage increased to 72%. Students also improved their reading and language abilities following their participation in the dialogic literary gatherings which took place weekly in the classrooms. This initiative allowed children to read, discuss literary works and link profound themes of humankind with their own lives.

As a result of its impact, European institutions – from the European Commission to the European Parliament or the European Council, among others – have recommended the learning communities as a model to prevent school dropout.

Source: ExE (2022[56]), *Fundación Empresarios por la Educación*, https://fundacionexe.org.co/ (accessed on 24 March 2022); Soler, M. et al. (2019[57]), "Transforming rural education in Colombia through family participation", https://doi.org/10.4119/jsse-3251.

Further successful measures have been taken since the COVID-19 pandemic

Since the COVID-19 crisis, many measures have been taken to promote distance learning or the use of digital tools in schools and homes. During the pandemic, the Ministry of National Education adopted initiatives such as *Colombia Aprende*, *Colombia Aprende Móvil* or *Aprende Digital*, which provided a wide variety of free educational resources to the educational community through online platforms or portals for mobile phones. In a co-ordinated effort, the Colombian Ministry of Information, Technology and Communications (MinTIC) ordered mobile phone operators to provide zero-rate conditions for the education community. Other initiatives such as *Mi señal* aimed to support the work at home of students and teachers in rural areas through radio solutions (Vincent-Lancrin, Cobo Romaní and Reimers, 2022[58]). Besides, to help families during school closures, initiatives such as *Mis Manos te Enseñan* – in response to the closure of early childhood development services – provided parents with an educational package that included basic materials (e.g. paper, paint, chalk and crayons).

Civil society and non-governmental organisations' initiatives have also been crucial to help rural areas face the COVID-19 consequences in rural areas. Organisations such as *Empresarios por la Educación*, *Alianza ERA (Educación Rural Antioquia)* and universities have worked closely with the Ministry of National Education to promote innovative processes. Some of them encouraged the use of low-cost devices, including mobile phones, as tools to facilitate the exchange of learning materials as well as to facilitate interaction between students, parents and teachers in rural areas (Vincent-Lancrin, Cobo Romaní and Reimers, 2022[58]). In addition, the World Bank has developed *Monitor Escolar*, a data technology platform that is highly adaptable to local needs and conditions. It allows for the real-time data collection on school conditions for implementing health protocols and combining in-person and distance learning, student vulnerabilities and dropout risk, conditions for home-based learning and the effectiveness of remedial education programmes (World Bank, 2021[59]).

Education policies in rural areas have important scope for improvement

Despite the efforts described in the current section, education policies and initiatives have relevant areas for improvement:

- The rural focus of education strategies and policies is still limited, partly due to the centralisation of decision-making, the lack of flexibility of education policies, the need for greater involvement of local actors in the design and implementation of policies, and the weak adaptation to local contexts and specificities.
- Clearer communication and co-ordination for educational strategies are lacking for the effective implementation of innovative practices and solutions. More broadly, education policies lack co-ordination with other sectoral policies, including infrastructure plans.
- Rural education needs improved upskilling policies, especially since the strengthened use of digital tools with the COVID-19 pandemic. Indeed, measures undertaken during the pandemic to ensure access to education have been more difficult to implement in rural areas given the lack of broadband connectivity and digital skills in rural areas. For example, digital delivery platforms developed by the Department of Education of the city of Bogotá are more difficult to achieve in rural areas. This sheds light on the significant wider urban-rural digitalisation gaps.
- The high dropout rates and lower population with a higher education degree in rural areas call for policies aiming to better link the academic offer of secondary and post-secondary education with the labour market needs of rural areas.
- In general, the monitoring of educational policies should be reinforced and revaluated in some cases. For example, some entities, such as the National Training Service (SENA), measure the success of their programmes by their coverage (e.g. number of students) rather than a more holistic evaluation (e.g. number of students managing to complete a course/cycle or programme).

Some actions can be taken to tackle these challenges, to identify innovative and flexible ways to improve accessibility, quality and policy making of education at all levels in rural areas, as well as to learn from diversity across stakeholders, levels of government and other OECD countries.

Reinforce flexibility in the education system to adapt to rural needs

Recent efforts to better integrate rural communities in the design of curricula and the implementation of educational policies still do not fully consider rural identity and the diversity and particularities (geographical, traditional, historical, cultural, environmental) of the different Colombian regions. National policies should ensure that educational tools and pedagogical experiences in rural areas – including self-study modules or differentiated learning guides – respond to these particularities. Beyond the construction and design of curricula, local educational communities should have the possibility to evaluate their effectiveness and make adjustments according to the results. To achieve this, it is necessary to promote mechanisms for collaboration and dialogue between the different actors (see below).

Law 715 of 2001 establishes minimum curricular content for the departments. However, given the lower mathematics and reading scores in rural areas, prioritised core curriculum guidelines from the national level should better target these basic competencies, boost educational outcomes, help recover learning losses from the COVID-19 pandemic[13] and still leave flexibility in the rest of the curriculum. National authorities will nevertheless have to take into account that the potential for curricular autonomy of rural departments is limited by a number of factors, including the capacity of schools and teachers to adapt to new content and the insufficient leadership of certain school communities (Radinger et al., 2018[60]). Some OECD and non-OECD countries such as Chile or Viet Nam are currently implementing a prioritised core curriculum to recover learning losses from the COVID-19 pandemic.

Targeted policies with flexible approaches can help address rural dropout. For example, the development of alternative and flexible schools with adapted processes can focus on those children with gap years in education. An inspiring initiative can be Chile's Súmate Foundation, which promotes basic and secondary schools for children and young people with two or more years behind in school. The initiative focuses on the development of socio-emotional and cognitive skills through active methodologies that promote the development of competencies as well as the construction of educational trajectories and life projects.

There is also scope to add greater flexibility in school food programmes to support local economies. The school plays a key role in feeding many rural children and youth with lunch, which for many is the most nutritionally complete meal of the day. The Colombian School Food Programme (PAE) could be more flexible and encourage rural schools, which have fixed providers, to integrate local culture and culinary products into menus (e.g. replace an industrially produced *pandebono* with a locally produced *arepa* or sugar-sweetened fruit drinks with fresh fruit). While these changes could demand greater administrative and monitoring capacity (e.g. on quality), if well managed, they could provide opportunities for local producers, including Indigenous communities.

Promote learning communities to solve pressing issues in rural education

Better integrating local communities in educational decision-making can help adapt the educational offer to the conditions of the community. Committees formed by teachers, parents and students could contribute to involving local actors in decision-making about school life, academic issues (including the design and evaluation of curricula), cultural activities, infrastructure and materials. This would help ensure that family members or people from the community participate and feel involved in the decisions. For example, beyond the Law on the Indigenous Education System, which involves communities in the implementation of educational schemes, the government could rely on learning communities to better integrate Indigenous and Afro-descendant communities into the educational community and involve them in decision-making.

Besides, given the improvements in the academic performance of many schools involved with learning communities, educational authorities should follow these schools' trajectories and evaluate if they manage to overcome early dropout.

Upskill rural teachers and improve attraction policies

Many efforts have already been made in this direction; however, as described in the previous section, rural areas have lower access to the Internet. Besides, according to the United Nations Educational, Scientific and Cultural Organization (UNESCO), infraestrcuture communications planning processes in rural areas do not incorporate the needs of the environment and the heterogeneity of local communities. In this context, education policies at the national level need to take into account these fragilities at the local level in order to adjust them to reality and accompany rural communities, including teachers, in this long process of adaptation. National authorities should consider the following actions:

- **Improving rural teachers' access to training courses, including ICT upskilling**. In parallel with efforts in extending broadband connectivity throughout rural areas, it is necessary to encourage ICT training for teachers in rural schools to optimise the current and future use of digital tools. Teacher training and support policies for the appropriation of digital technologies (e.g. *Computadores para Educar* training strategy) have not had a significant impact on the ICT appropriation of trained teachers, particularly in rural areas (Ministry of National Education/MinTIC/CONPES, 2020[48]). In addition, while rural teachers do not have any specific training processes, many also do not manage to participate in the generic training provided by the education secretariats at the departmental level, given that the territorial entities cannot assume the cost of transporting teachers and cannot leave classrooms without teachers (Bautista Macia, 2019[61]). Alternatively, national authorities should create specific training for them – virtually when possible – on the use of new educational materials (e.g. ICT and digital tools) but also curriculum updates or teaching methodologies.
- **Develop digital skills through volunteer committees**. Fostering collaboration between teachers has proven to have a positive impact on the use of ICT in classes and on the teaching of digital technologies to students (OECD, 2020[62]). Therefore, experience-sharing networks run by more experienced teachers could be encouraged, including committees of volunteer teachers at the department level to support teachers from rural communities with the most difficulties in their adaptation to digital and training processes. An inspiring case could be the Estonian Edulabs programme which offers an online platform where teachers help each other or consult each other on the use of technological resources.
- **Strengthen the support of alternative educational tools in rural areas**. Radio education promoted by initiatives such as *Enseña por Colombia*, with 10-minute episodes, could be further explored in rural areas, as a complementary tool or as a substitute for some school days to avoid long journeys to schools. For instance, the use of low-cost technologies in the creation of education platforms could include social media platforms like WhatsApp through which teachers and students could discuss the radio lessons.
- **Improve attraction and retention policies for rural teachers**. Beyond digitalisation, the difficult conditions of educational institutions in rural areas described in this section make them unattractive to teachers, who often request transfers closer to urban areas. Geographic mobility of teachers in rural areas could be enhanced with career incentives (e.g. faster progression of the career system for young teachers), clearer compensation for long travel times that go beyond financial compensation (e.g. flexible work hours, shorter time in classrooms, rotation systems for itinerant teachers) or further accommodation support. To help avoid transport problems, in the most extreme cases where teachers have to walk long hours to get to school and for whom the 2020 rural school transport law has not provided an alternative transport solution, teachers could also benefit from the existing school residences in rural areas.

Ensure complete trajectories by better connecting upper secondary education with labour market needs

It is essential to better connect the academic offer of secondary and post-secondary education with the labour market and productive structure of rural areas. For this reason, the expansion and diversification of the supply of rural education in key sectors such as agriculture, marketing, logistics, transport, conservation and waste disposal, sustainable tourism and construction are fundamental. Many rural departments do not have academic programmes related to their main productive sectors. This is the case, for example, of active training programmes and master or doctoral programmes related to the agricultural sector, which are limited in rural departments (of Colombia's 32 departments, the 12 departments with a 100% rural population account for only 90 of the 1 019 training programmes in the country) (Niño et al., 2020[63]).

In the same logic, there is also room to better connect the educational training of young people with the needs and priorities of the territories, from the protection and conservation of local natural resources to productive processes' innovations. One initiative along these lines is the Academy for Smart Specialisation of Karlstad University in Sweden, which prepares students for employment to drive industrial development in prioritised areas in the region of Värmland (OECD, 2021[64]). In the framework of a regional strategy in co-operation with the Governor's Office and municipalities, Colombian universities located in rural regions could become meeting places for researchers, companies, financiers and entrepreneurs in order to better link research innovation and education. These efforts can be part of an overall strategy that includes other related objectives such as sectoral specialisation, the support of rural entrepreneurship and the promotion of scholarships and internships.

These efforts should also concern adults with no or incomplete education who wish to complete their education or validate their studies. Flexible methods of education such as the Tutorial Learning System (SAT)[14] are a step in the right direction and should be reinforced by the national government to enable people of a relatively older age to easily access the labour market, especially in strategic sectors for the region. In addition, universities, polytechnic institutes and vocational education and training (VET) schools, in co-operation with public (e.g. national ministries, departmental institutions, employment agencies) and private (e.g. business support agencies) actors, should organise meetings between secondary education students and companies operating in the department in strategic sectors.

Finally, besides strengthening the co-operation with departmental education secretariats, national authorities should also strengthen their support to networks such as the Alliances for Rural Education and Development (ARED). This strategy from the Ministry of National Education – aiming to strengthen rural higher education through joined efforts between national, departmental and local authorities, higher education institutions, entrepreneurs, non-governmental organisations (NGOs), foundations, and international co-operation agencies, among others – should be better integrated into this objective of better connecting upper secondary education with labour market needs.

All these measures should be inside the comprehensive strategy for rural education to provide prospects and opportunities for the rural population and thus contribute to reducing educational dropout.

Improving healthcare in rural areas of Colombia

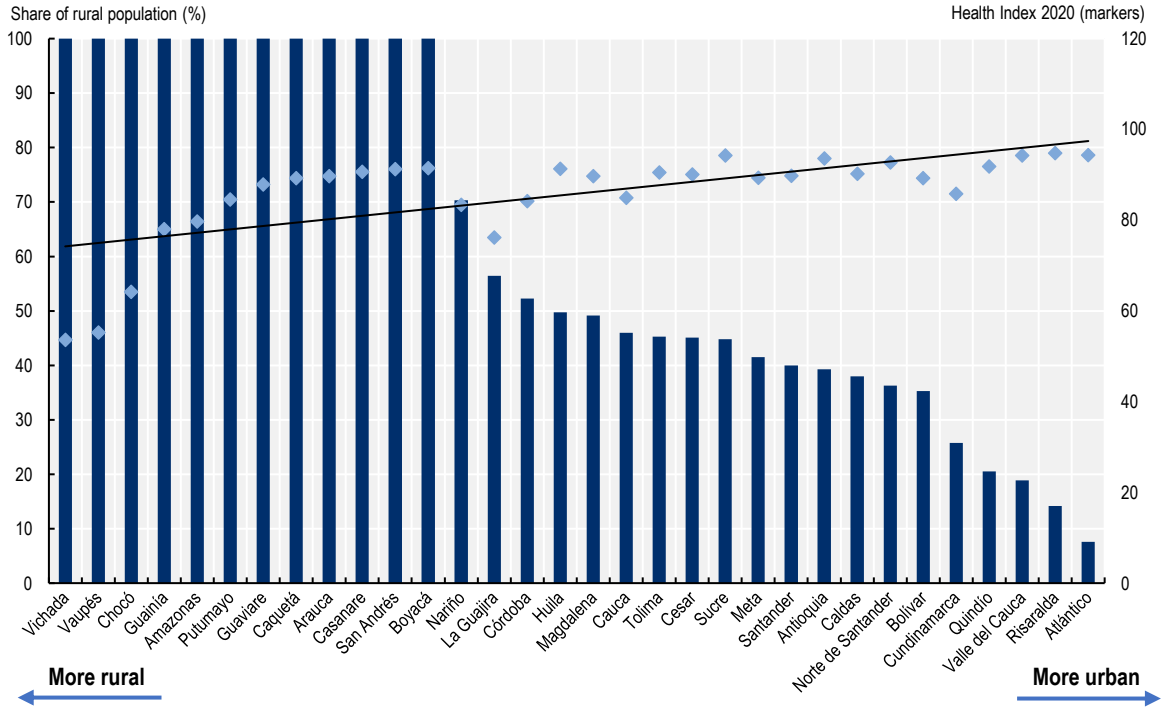
Rural health is a key component of a high-performing healthcare system. This is true not only because rural regions host around 30% of the OECD population but also because inequalities in provision are more likely to happen in rural places. Rural residents across OECD countries have on average shorter life spans and less healthy lifestyles. Implementing effective health policy in countries with a diverse and remote rural populations like Colombia relies not only on understanding the health issues facing rural populations but also on finding ways to increase scale and financial sustainability.

The state of healthcare in rural areas of Colombia

Over the years, Colombia has made rapid progress in extending healthcare coverage to almost all of the population and reducing infant mortality. In three decades, the country has gone from around 17% of the population with health insurance (in 1990) to almost 98% in 2020. Such progress is also reflected in a lower cost of healthcare services for the population: out-of-pocket spending dropped from 52% of total expenditure in 1993 to less than 15%. The country has reached vaccination coverage rates of 95% (including pentavalent and measles, mumps and Rrubella vaccines).

However, urban-rural disparities in health outcomes remain. Rural regions in Colombia still rank the lowest when it comes to health outcomes (Figure 4.10). In particular, Chocó, Vaupés and Vichada have the lowest rates of health performance, according to DNP's health index. Such low performance is explained by a still relatively low share of people affiliated with a healthcare system (72% average in the 3 regions vs. 94% country average in 2020) and a low share of children with complete vaccine schemes (76% average in the 3 regions vs. 95% country average in 2020). It is worth noting that the general social security system (with public and private participation) in Colombia has a greater scope, whereas entities such as regions have limited powers. Therefore, measures of health performance cannot be attached solely to the actions of regional governments.

Figure 4.10. Health performance by degree of rurality at departmental level in Colombia



Note: The "health index" includes the infant mortality rate (proportion of deaths recorded in relation to the number of individuals under one year of age in 2019), pentavalent vaccination coverage (percentage of the population under one year of age having received in 2019 the third dose of the pentavalent vaccine – diphtheria, pertussis, tetanus, hepatitis B and haemophilus influenzae type b) and healthcare coverage (proportion of the population that is affiliated to one of the health regimes in 2020).
Source: DNP (2021[43]), *Resultados Medición Desempeño Municipal 2020*, Dirección de Descentralización y Desarrollo Regional, based on data from the National Administrative Department of Statistics (DANE) and the Colombian Ministry of Health and Social Protection.

Issues in healthcare access start from the maternity care in rural areas, due to the low presence of specialised healthcare and high rates of procedures outside healthcare centres. Remote rural areas in Colombia register 86 maternal deaths per 100 000 live births per year, compared to 42 maternal deaths in

urban areas in 2019. Only 26% of women in rural areas have had access to mammograms, far below the rate in urban areas (52%). Reliance on alternative healthcare procures outside the official system is more common, due to poor access but also lack of information and traditions. For example, 25% of women in Chocó reported that their most recent birth took place outside a healthcare centre by 2019, compared to 1.6% at the national level (Ministry of Health and Social Protection, 2020[65]). Besides, in rural areas, traditions and multiculturality pose challenges to extending vaccination in rural communities. For example, low COVID-19 vaccination rates in some communities are explained by Indigenous communities' reticence towards the vaccine (Ministry of Health and Social Protection, 2022[66]).

Deficiencies in sanitary conditions are also factors affecting health outcomes in rural areas. Water coverage in rural areas (71.7% in 2019) is low when compared to the number in cities (96.3%) (CEDLAS/World Bank, 2021[47]), which has led to high mortality rates around otherwise preventable diseases, e.g. mortality rate due to Acute Diarrhoeal Disease in rural children under 5 years (8.14%) is 2.7 times higher than in urban areas (2.98%).

Access barriers in the rural areas of the country are associated with insufficient infrastructure and a lack of healthcare professionals. Rural areas in seven municipalities in the department of Cauca and three municipalities in Alto Guaviare (Putumayo) have no healthcare centres. Moreover, rural users have to wait twice as long as urban users for general appointments and five times as long – more than a month on average – to see a paediatrician (World Bank, 2021[45]). In addition, there are gaps in the skills of professionals, particularly digital skills, which were more evident during the COVID-19 crisis.

Policies aiming to improve healthcare services in rural areas

Efforts at the national level to improve access to healthcare services in rural areas are considerable. After the expansion of the subsidiary regime during the last decades, the national government is implementing a number of policies to improve access to healthcare and support greater coverage in rural areas. To this end, the National Rural Health Plan (NRHP), to be implemented during the period 2021-31, seeks several objectives:

- Close the urban-rural gap.
- Consolidate a special public health model for rural areas – with an emphasis on promotion and prevention.
- Reduce the gap in affiliation of the rural population and facilitate continuity in health insurance.
- Improve infrastructure and equipment.
- Strengthen integrated networks for the provision of healthcare services and the availability and skills of human talent in healthcare.

The national government is also working to consolidate the different healthcare models in rural areas. To this end, the government is improving the characterisation of the population, the territorial adaptation of Comprehensive Health Care Routes (RIAS) and developing integrated service provision networks to promote the use of telehealth, consultation care and home hospitalisation. The characterisation is being supported by major progress in information, including the recent database Sisbén IV, which provides information on the socio-economic conditions of households in Colombia (DNP, 2022[67]).

In order to strengthen local governance on healthcare, the Ministry of Health and Social Protection will issue guidelines and the roadmap for the implementation of the National Rural Health Plan (NRHP) to articulate the actors of the General System of Social Security in Health and provide the required technical assistance to the departments and municipalities.

Improving quality is also a central goal of the government. The NRHP seeks to strengthen the qualification and accreditation systems for providers and insurers as well as operationalise the special care models at the local level, with a comprehensive approach for the patient and a differential approach for rural areas.

However, one of the main challenges corresponds to the geographical, cultural and ethnic particularities, and service offers, among other aspects, which have caused the resident population in some territories to face barriers to access to healthcare services.

These health strategies go in the right direction to address the main health issues in rural communities. Implementing this national plan could put Colombia in a front-line position in addressing health issues with a rural focus. In fact, a recent review of eight countries (Australia, Canada, Croatia, Estonia, Italy, Spain, the UK and the US) identified a range of policies in place to ensure rural emergency and hospital care, but only one country (Italy) had a national policy on hospitals in rural or remote areas (Rechel, B. et al, 2016[68])

Health policies in rural areas have important scope for improvement

The implementation of the National Rural Health Plan (NRHP) of Colombia could be reinforced by ensuring sound policy co-ordination with a focus on primary healthcare, further promoting flexibility and adaptation to rural characteristics, and accelerating the adoption of telemedicine.

Ensuring lasting health outcomes through policy co-ordination with a focus on primary healthcare

Low population density and dispersion make it costly to provide quality healthcare to all rural populations and, even more so, to provide specialised healthcare to all rural populations. Therefore, co-operation within healthcare programmes with other policies and areas is essential to attain economies of scale and ensure better healthcare quality. To this end, the implementation of the NRHP needs to be co-ordinated with other development actions for rural well-being like education, particularly the Special Admissions Programme (PAES) and infrastructure projects in sanitation and broadband coverage. The PDETs can allow the articulation of health policies and adapt them to rural particularities. As mentioned in Chapter 3, this type of approach should be extended to all rural municipalities.

Given the difficulties in providing specialised healthcare services, the rural health policy should ensure a sound primary healthcare and prevention service. A co-ordinated approach to focus on primary care and prevention is one of the most effective actions across OECD countries to attain cost-effective service and reduces unnecessary hospital admissions. Strengthening primary healthcare also increases the resilience of community well-being as it helps respond well to a number of growing health needs (e.g. effective primary care as the backbone of healthy ageing policies), as health promotion and disease prevention services are critical to maintaining the healthy, high-functioning older populations.

In Colombia, an action to improve outcomes of primary healthcare and prevention is to strengthen the comprehensive approach to enhancing the quality of life from an early age. In many rural communities, private childcare is not available, which leads to many children without proper healthcare in their early days, affecting human capital accumulation trajectories. Leveraging the National Policy for Integral Development of Early Childhood, and strengthening the co-ordination of the Family Welfare Institute (ICBF) early childhood development (ECD) services in rural areas could help improve children's health by ensuring better nutritional levels. The fragmentation of ECD service modalities in rural regions may be causing quality gaps in ICBF services that also affect the human capital accumulation of children over their lifecycle (World Bank, 2021[45]). Simplification of administrative procedures for accessing ECD services – such as reducing the number of documents required or integrating ICBF information systems – and strengthening monitoring of ECD service delivery should be promoted.

Adopting a horizontal approach that involves different actors with the goal to ensure prevention from childhood is the first building block to improve health outcomes in rural areas. The efforts to co-ordinate the universalisation of comprehensive early childhood care in key areas such as vaccination, nutrition and growth, or development controls with national strategies such as *Cero a Siempre*, should be approached

as an inter-sectoral policy for rural development. It can unite the efforts of the public and private sectors, civil society organisations and international co-operation in favour of early childhood in Colombia.

Co-ordination is also relevant among healthcare programmes in rural areas. Some public social programmes provided by the same agency, particularly those from the Department for Social Prosperity, still have separate and independent delivery chains (World Bank, 2021[45]). This can lead to entry barriers and administrative burdens for rural citizens who have less access to electronic and government-to-person (G2P) payments and need to travel several times to claim their benefits for different health programmes or get a specific document for registry. The government should unify health service support programmes to reduce administrative burden and time spent for rural residents.

Simplification of procedures and economies of scale can be achieved through an overall strategy to reorganise primary care around multidisciplinary teams. The NRHP already recognises the important role of Multidisciplinary Healthcare Teams (MHTs) in each region to define local priorities on health and identify action plans. These teams will be assigned to families for whom they will lead the primary care process, from the design to the implementation of primary care plans. The MHTs will have a variety of profiles (technicians, professionals and specialists) and will include new profiles such as community managers and agents, health promoters, community leaders or professionals from other disciplines such as health engineers, sociologists, agronomists, anthropologists, physical education professionals, among others. Such teams should be incentivised in all regions and could be further implemented with a focus on patient engagement in decision making. For example, Multi-professional Health Houses in France have been levers for improving access to care, particularly in rural areas where they contribute to reducing the isolation of certain territories (Box 4.5).

Box 4.5. Multi-professional health centres in France

In France, Multi-professional Health Houses (*Maisons de santé pluriprofessionnelles*, MSP) are multidisciplinary structures where doctors and medical auxiliaries work in a co-ordinated manner. The idea is to create a space dedicated to the co-ordination of care as close as possible to the population through the sharing of skills. They allow better management of professionals' time, mutualisation of operating costs, greater attractiveness of under-endowed areas and maintenance of local public services. The Health Houses, which are financed by public funds, sign a multi-year contract with the Regional Health Agency (*Agence Régionale de Santé*) setting out their objectives and resources before any financial aid is paid out by the agency.

The Health Houses have legal personalities and are made up of medical professionals, medical assistants and pharmacists (at least two general practitioners – or one on a temporary basis – and a medical assistant). These healthcare professionals must draw up a health project attesting to the co-ordination of their practice, which must be submitted to the Regional Health Agency.

In June 2021, France had approximately 1 889 Health Houses on its territory, mostly located in medically disadvantaged areas. These medical structures are highly appreciated by young practitioners looking for a job and by doctors seeking to boost their careers. In addition to the various existing aid schemes (subsidies, tax exemptions, etc.) to encourage their development, working within this type of structure offers undeniable advantages: pooling of resources leading to more efficient management, better time management resulting in a better quality of life, further teamwork reducing professional isolation, or pooling of skills improving care provision.

Source: DREES (2021[69]), "Médecins en maisons de santé pluriprofessionnelle : des revenus en hausse et des effets prometteurs pour l'accès aux soins", https://drees.solidarites-sante.gouv.fr/communique-de-presse/medecins-en-maisons-de-sante-pluriprofessionnelle-des-revenus-en-hausse-et-des.

Scaling up flexible care alternatives to empower rural population around health

The flexibility of the healthcare system can help involve rural communities as partenrs to improve health outcomes. Patient involvement is critical to a high-performing and people-centred health system. Studies have shown that patients who are more involved in their care show better outcomes and experiences (Hibbard and Greene, 2013[70]).

In Colombia, mobile alternatives such as mobile health units (MHUs) can contribute to boosting prevention in remote regions with specific needs, especially in terms of vaccination uptake. Promoted by public hospitals, MHUs have a role in prevention and promotion, in healthcare and in carrying out community actions (e.g. first aid training). These types of units require greater support in terms of the professionalisation of staff and financial capacity to reach remote communities with clearer frequency. They can be complemented by Community Health Committees or networks to enhance information on health-related issues inside the communities and serve as intermediaries with public and health authorities.

Moreover, there are alternative health practices in rural communities that could be aligned or institutionalised to improve health accessibility and ensure their quality. The multiculturalism of Colombian rural regions and the historic lag in some services has led to different forms of healthcare provision. Instead of outright banning, policy could leverage those practices and support their complementarity with conventional healthcare provision. This includes Indigenous health approaches. Moreover, traditional approaches like rural health promoters – rural women trained by the government to do prevention work – could be reintegrated into the health policy approach to help prevent diseases in rural communities (DNP, 2015[46]).

Supporting flexible healthcare alternatives in rural areas needs to be part of a comprehensive strategy that seeks to increase the availability and retention of human talent in healthcare. Therefore, the training and working conditions of the technical, technological and professionals working in the healthcare sector should be reinforced. The efforts and objectives of the Ministry of Health and Social Protection, which plans to strengthen the Compulsory Social Service or incentives aiming to increase the retention of healthcare professionals, are moving in the right direction.

Furthermore, greater adaptation in terms of the payment capacity of rural communities is needed to ensure quality service. The hospital-centric model of care delivery is ineffective in meeting the needs of the most vulnerable populations – including in rural areas – with chronic conditions requiring comprehensive care and better integration of health and social care. Current payment methods still do not account properly for the specific risk profiles of citizens, providing little incentive to healthcare providers to offer differentiated care to patients with different risk factors.

The country has piloted a model to specifically target rural regions with the greatest health needs (Law 1 122 of 2007). This model initially targeted Amazonas, Caquetá, Guainía, Guaviare, Putumayo, Vaupés and Vichada with exceptional treatment in the frame of the general system of social security on health to guarantee access to healthcare services or strengthen insurance. This approach could be extended to other rural departments such as Chocó, Guajira, Llanos Orientales or Norte de Santander, which should be included in a special model that strengthens health insurance for dispersed areas, thus guaranteeing access to healthcare services and protecting healthcare resources in order to improve the health status of their population.

Fostering the use of telemedicine in rural areas

Despite limited Internet access in rural areas, telemedicine is an opportunity to bring basic services such as healthcare closer to rural users. As seen before, mobile coverage is a growing trend in Colombian rural areas, which can be leveraged to extend healthcare services. For example, projects like the obstetric intensive care unit in 14 municipalities in northern Cauca, promoted by the Valle de Lili Foundation (Fundación Valle del Lili, 2022[71]) allow specialist doctors to assist general practitioners or other

specialised doctors telematically. This project complements local competencies in the management of obstetric emergencies with tele-assistance via WhatsApp and – when the infrastructure allows – in some hospitals in formal telemedicine processes.

To overcome the significant challenge of Internet access, some initiatives are turning to alternative technologies such as satellite technology. For example, in the department of Caldas, telemedicine services have begun to be implemented in rural areas via satellite technology in places without mobile phone and Internet signals. This project, which connects patients in remote areas with medical specialists, was made possible thanks to the co-operation with the University of Caldas, which provided the necessary tools for telemedicine and the support of the Governor's Office (Usma, 2020[72]). Collaboration with universities can be strengthened to foster healthcare professionals' skills in the use of digital equipment and to offer them support in incorporating these tools into their routine work activities.

Lack of electricity and drinking water is still a pressing issue in some rural areas

Other relevant services such as electricity or drinking water are a fundamental to reach basic levels of quality of life in Colombian rural communities. Colombia has made important progress to reach universal coverage in these services, with specific national policies on rural areas. However, as in other services, the urban-rural gap in accessing electricity and water remains important. Given the overall progress in these areas, this report only provides a short overview of these issues, without detailing specific sectoral recommendations.

Access to electricity

By 2021, about 10.9% of Colombian rural households lacked electricity service, far above the 0.1% of urban households lacking this service. Remote rural regions like Guainía, La Guajira or Vichada register less than 50% of households connected to electricity, which indicates a clear need to action (DANE, 2022[73]). Moreover, municipalities with electricity but unconnected to the grid often face an intermittent service (less than 24 hours a day), as in the best scenario, it is powered through decentralised fuel-based power plants.

The government's strategies to increase electricity coverage increasingly rely on the provision of renewable energy technologies, mainly solar panels and wind power parks. From 2018 to April 2021, about 32% of newly connected users received electricity through solar panels (Ministry of Mines and Energy, 2021[74]). To conduct such projects, the government has specific funds, including the Financial Support Fund for the Energization of Interconnected Rural Areas and the Financial Support Fund for the Energization of Non-Interconnected Areas, which are funded by the General System of Royalties. The Ministry of Mines and Energy has also promoted projects executed by network operators, incentivising operators through a percentage increase in the component of the tariff distribution paid by all users.

Universal electricity coverage in rural areas is a process that will take time, given its reliance on current funding and implementation times. At the current pace, the Mining and Energy Planning Unit has estimated that 96.4% of the remaining rural households without electricity would be covered only by 2035 (Ministry of Mines and Energy, 2021[74]). Therefore, Electricity coverage in rural regions should be accelerated to reach universalisation at an earlier date, as additional years to reach this goal exclude rural communities to benefit from the digital transformation. Speeding up this policy needs greater policy prioritisation within the national development agenda, stronger co-operation with network operators (e.g. using incentives in tariffs) and economies of scale with other projects (e.g. transportation or broadband infrastructure). Likewise, seizing technological progress on decentralised energy systems (e.g. cheaper and more efficient solar panels) is a strategy that other OECD countries are leveraging to offer energy solutions to remote rural areas.

Water

By 2021, about 47.5% of Colombian rural households were without access to tap water, far above the 2.5% of urban households lacking this service (DANE, 2022[73]).[15] The lack of access to water is more evident in remote rural regions. For example, rural areas in Amazonas, Guaviare or La Guajira had less than 12% of households with access to tap water (DANE, 2022[73]). In terms of quality, according to the Water Quality Risk Index for Human Consumption (IRCA), rural areas, on average, present a risk of water sanitation (IRCA of 29.9 in 2019) almost 3 times as high as in urban areas (11.3). Nevertheless, such a risk to water quality in rural areas has improved substantially since 2015, decreasing from high to medium.

Colombia has experienced important progress in water coverage in the last years, but it is estimated that the country will have to guarantee access to drinking water to at least 12 million additional people to reach universal access by 2030 (Ministry of Housing, City and Territory of Colombia, 2021[75]). The country has already elaborated particular water-related national policies for rural areas. These include Water to the Countryside programme ("Agua al Campo"), which provides institutional, financial and technical capacity building to operators (e.g. in project structuring) or Water to the Neighbourhood programme ("Agua al Barrio"), which provides aqueduct and sewage services to informal human settlements.

To achieve universal access to water by 2030, the country requires a greater focus on rural regions, where there is the greatest gap. To this end, the national government (2021[75]) has identified some necessary measures, such as improving information systems in the sector to identify households without access, strengthening the ongoing programmes focused on rural regions, ensuring a coordinated action among institutions that influence water policy (e.g. with the creation of the National Water Agency) or greater support to regional Enterprises of Public Services (e.g. with clear performance indicators or leveraging performance-based contracts) . Moreover, to increase the resilience of the water system in the face of the effects of climate change, the government needs to allocate specific resources to mitigating the risk of shortages and promote circular economy practices in the use of water (increase the treatment of wastewater and reuse of treated water for different activities).

Final considerations

Colombia has made significant progress over time to extend connectivity and improve access of rural communities to education, healthcare and other services (water and electricity). In recent years, increased investments in transport infrastructure, mainly primary roads, electricity and water infrastructure along with greater recognition of the need to expand broadband in rural communities are a sign of the development process in the country. Moreover, triggered by the IRR, the government has elaborated specific national plans with a rural focus to provide basic services to rural areas. New approaches to providing education and healthcare to rural communities have also contributed to a steady improvement on quality of live. This is particularly the case for primary health and education where the country has achieved high coverage rates. Other services such as water and electricity have experienced important progress, and efforts need to focus on accelerate the path for universal coverage.

However, closing the gap on access to services and transport and broadband infrastructure in rural areas still faces various challenges. The various IRR's national plans to deliver rural services and infrastructure are still in the initial stages and need coordination and continuous political and financial commitment. Factors including a difficult geography and dispersed settlements along with violence, lack of information and weaker local institutional capacity represent greater bottlenecks for investments and attraction of service professionals. Access to high-quality broadband can change the way rural population access services and markets, but its policy needs a comprehensive approach. Flexibility and adaptation of national policies to local needs together with greater transparency in administrative procedures, empowerment of local communities and experimentation in service delivery are key actions to enhance access to services and connectivity in rural areas, and thus attain higher levels well-being for rural population

References

Anatel (2020), “Redes Comunitárias”, Agência Nacional de Telecomunicações, Brasilia, https://www.gov.br/anatel/pt-br/regulado/universalizacao/redes-comunitarias. [29]

Ancestra (2019), “«¡Hola!, ¿hoy sí hay internet?»”, https://ancestraguia.wordpress.com/2019/07/24/comentarios-vive-digital-antioquia/ (accessed on 1 February 2022). [24]

ANE (2022), *Plan Maestro de Gestión de Espectro*, https://www.ane.gov.co/SitePages/det-noticias.aspx?p=378 (accessed on 18 February 2022). [27]

APC (2020), *Expanding the Telecommunications Operators Ecosystem: Policy and Regulatory Guidelines to Enable Local Operators*, Association for Progressive Communications, https://www.apc.org/en/pubs/expanding-telecommunications-operators-ecosystem-policy-and-regulatory-guidelines-enable-local (accessed on 9 March 2021). [25]

Arias Gaviria, J. (2017), “Problemas y retos de la educación rural colombiana”, *Revista Educación Y Ciudad*, Vol. 33, pp. 53-62, https://doi.org/10.36737/01230425.v0.n33.2017.1647. [49]

Attrey, A., M. Lesher and C. Lomax (2020), “The Role of sandboxes in promoting flexibility and innovation in the digital age”*, Going Digital Toolkit Note*, No. 2, http://goingdigital.oecd.org/data/notes/No2_ToolkitNote_Sandboxes.pdf. [41]

Bautista Macia, M. (2019), “La formación en servicio de los maestros rurales de Colombia”, *Revista de la Universidad de La Salle*, Vol. 79, pp. 67-89, https://ciencia.lasalle.edu.co/cgi/viewcontent.cgi?article=2238&context=ruls. [61]

Bonifaz, J. et al. (2020), “Brechas de infraestructura en la región andina”*, Documento para discusión*, No. IDB-DP-00807, Banco Interamericano de Desarrollo, Washington, DC. [10]

Cavallo, E., A. Powell and T. Serebrisky (2020), “De estructuras a servicios: el camino a una mejor infraestructura en América Latina y el Caribe”, Banco Interamericano de Desarrollo, Washington, DC. [11]

CEDLAS/World Bank (2021), *Socio-Economic Database for Latin America and the Caribbean*, https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/estadisticas/#1496165425791-920f2d43-f84a (accessed on 24 March 2022). [47]

Congreso de Colombia (2021), *Ley de Internet como serivico público. Law 2108 of 2021*, https://dapre.presidencia.gov.co/normativa/normativa/LEY%202108%20DEL%2029%20DE%20JULIO%20DE%202021.pdf (accessed on 22 April 2022). [30]

CRC (2022), *Índice*, https://www.crcom.gov.co/es/micrositios/indice (accessed on 28 January 2022). [31]

CRC (2021), *Resolución 6380*, https://crcom.gov.co/es/normatividad/resolucion-6380 (accessed on 22 April 2022). [36]

CRC (n.d.), *Cifras de los servicios de telecomunicaciones*, https://www.postdata.gov.co/dashboard/cifras-de-los-servicios-de-telecomunicaciones. [38]

DANE (2022), *Encuesta Nacional de Calidad de Vida (ECV) 2021*, https://www.dane.gov.co/files/investigaciones/condiciones_vida/calidad_vida/2020/Boletin_Tecnico_ECV_2020.pdf (accessed on 26 October 2021). [17]

DANE (2022), *Encuesta Nacional de Calidad de Vida 2021*, https://www.dane.gov.co/index.php/estadisticas-por-tema/salud/calidad-de-vida-ecv/encuesta-nacional-de-calidad-de-vida-ecv-2021. [73]

DNP (2022), *Abecé: el Sisbén IV*, https://colaboracion.dnp.gov.co/CDT/Prensa/Sisben-Abece.pdf. [67]

DNP (2022), "Proyecto de identificación de vías terciarias con inteligencia artificial", https://www.dnp.gov.co/Paginas/DNP-y-MiniTransporte-desarrollo-el-proyecto-de-identificacion-de-vias-terciarias-con-inteligencia-artificial.aspx. [13]

DNP (2021), *Resultados Medición Desempeño Municipal 2020*, Dirección de Descentralización y Desarrollo Regional. [43]

DNP (2015), *El campo colombiano: un camino hacia el bienestar y la paz*, Misión para la Transformación del Campo, https://www.dnp.gov.co/programas/agricultura/Paginas/Informe-misi%C3%B3n-FInal.aspx. [46]

dpl news (2022), "Claro Colombia y Telefónica logran que el MinTIC reduzca precio del espectro", https://dplnews.com/claro-colombia-y-telefonica-logran-que-el-mintic-reduzca-precio-del-espectro/ (accessed on 6 July 2022). [40]

DREES (2021), "Médecins en maisons de santé pluriprofessionnelle : des revenus en hausse et des effets prometteurs pour l'accès aux soins", Direction de la recherche, des études, de l'évaluation et des statistiques, https://drees.solidarites-sante.gouv.fr/communique-de-presse/medecins-en-maisons-de-sante-pluriprofessionnelle-des-revenus-en-hausse-et-des. [69]

EIU (2017), *Evaluating the Environment for Public-private Partnerships in Latin America and the Caribbean: The 2017 Infrascope*, The Economist Intelligence Unit, New York, NY. [8]

ExE (2022), *Fundación Empresarios por la Educación*, https://fundacionexe.org.co/ (accessed on 24 March 2022). [56]

FCC (2018), *FCC Facilitates Wireless Infrastructure Deployment for 5G*, Federal Communications Commission, https://www.fcc.gov/document/fcc-facilitates-wireless-infrastructure-deployment-5g (accessed on 9 October 2018). [32]

Fierce Wireless (2021), "Millicom to deploy O-RAN with Parallel Wireless in Latin America", https://www.fiercewireless.com/operators/millicom-to-deploy-o-ran-parallel-wireless-latin-america (accessed on 21 October 2021). [42]

Fundación Valle del Lili (2022), *Homepage*, https://valledellili.org/en/. [71]

Government of Colombia (2022), "Answers to OECD questionnaire on rural policy development". [19]

Government of Colombia (2019), "Comunicado/Resultados de la Subasta del Espectro Radioeléctrico", https://mintic.gov.co/portal/inicio/Sala-de-Prensa/Noticias/124713:Comunicado-Resultados-de-la-Subasta-del-Espectro-Radioelectrico (accessed on 28 January 2022). [37]

Government of Colombia (2019), *Informe de la Comisión de Expertos en Infraestructura de Transporte 2019*, https://www.scribd.com/document/436037438/Informe-de-la-Comision-de-Expertos-en-Infraestructura-de-Transporte-2019. [3]

Government of Colombia (2016), *Lineamientos de Política para la Gestión de la Red Terciaria*, CONPES 3857, https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/3857_RedTerciaria.pdf. [2]

Hibbard, J. and J. Greene (2013), "What the evidence shows about patient activation: Better health outcomes and care experiences; Fewer data on costs", *Health Affairs*, Vol. 32/2, pp. 207-214, https://doi.org/10.1377/hlthaff.2012.1061. [70]

INVIAS (2021), *Estado de la Red Vial*, https://www.invias.gov.co/index.php/informacion-institucional/2-principal/57-estado-de-la-red-vial. [12]

ITF (2021), *Innovations for Better Rural Mobility*, ITF Research Reports, OECD Publishing, Paris, https://www.itf-oecd.org/sites/default/files/docs/innovation-rural-mobility.pdf. [15]

Ministry of Agriculture and Rural Development (2019), *Politica Agropecuaria y de Desarrollo Rural 2018-2022*, https://sioc.minagricultura.gov.co/Documentos/20190326_politica_agro_2018-2022.pdf. [7]

Ministry of Health and Social Protection (2022), *Dosis aplicadas contra COVID-19*, https://app.powerbi.com/view?r=eyJrIjoiNThmZTJmZWYtOWFhMy00OGE1LWFiNDAtMTJmYjM0NDA5NGY2IiwidCI6ImJmYjdlMTNhLTdmYjctNDAxNi04MzBjLWQzNzE2ZThkZDhiOCJ9 (accessed on 24 March 2022). [66]

Ministry of Health and Social Protection (2020), *Registro de Estadísticas Vitales*, Volume 2, Ministry of Health and Social Protection, Bogotá. [65]

Ministry of Housing, City and Territory of Colombia (2021), *Colombia Azul: El futuro del agua potable*, 1ra. Ed., Viceministerio de Agua y Saneamiento Básico. [75]

Ministry of Mines and Energy (2021), *Plan Nacional de Electrificación Rural*, https://www.minenergia.gov.co/es/servicio-al-ciudadano/foros/se-adopta-el-plan-nacional-de-electrificaci%C3%B3n-rural-pner-para-zni-y-sin/. [74]

Ministry of National Education (2021), *Proyecto de Educación Rural PER*, 10 December 2021, https://www.mineducacion.gov.co/portal/Preescolar-basica-y-media/Proyectos-Cobertura/329722:Proyecto-de-Educacion-Rural-PER. [53]

Ministry of National Education (2021), *Todos a aprender*, https://educacionrindecuentas.mineducacion.gov.co/pilar1-educacion-de-calidad/todos-a-aprender-2/ (accessed on 12 April 2022). [54]

Ministry of National Education (2020), *Plan Especial de Educación Rural*, December 2020, Bogotá, https://www.mineducacion.gov.co/1759/articles-404773_Recurso_01.pdf. [51]

Ministry of National Education/MinTIC/CONPES (2020), *Tecnologías para Aprender: Política Nacional para Impulsar la Innovación en las Prácticas Educativas a través de las Tecnologías Digitales*, https://siteal.iiep.unesco.org/bdnp/3695/tecnologias-aprender-politica-nacional-impulsar-innovacion-practicas-educativas-traves. [48]

Ministry of Transport (2019), *Plan Nacional de Vías para la Integración Regional*, Planes Nacionales Sectoriales. [4]

MinTIC (2021), "'Plan Ejecutando y Conectando' llega a 250 zonas rurales alejadas del país", https://id.presidencia.gov.co/Paginas/prensa/2020/Plan-Ejecutando-y-Conectando-llega-a-250-zonas-rurales-alejadas-del-pais-200707.aspx (accessed on 22 October 2021). [22]

MinTIC (2021), "MINTIC renueva permisos de uso de espectro en la banda de 1.900 MHz, a CLARO Y MOVISTAR", https://mintic.gov.co/portal/inicio/Sala-de-prensa/Noticias/193367:MINTIC-renueva-permisos-de-uso-de-espectro-en-la-banda-de-1-900-MHz-a-CLARO-Y-MOVISTAR (accessed on 4 November 2021). [39]

MinTIC (2019), "MinTIC anuncia inicio de nuevo proyecto que conectará 1.000 zonas rurales en el país", https://mintic.gov.co/portal/inicio/Sala-de-prensa/Noticias/101504:MinTIC-anuncia-inicio-de-nuevo-proyecto-que-conectara-1-000-zonas-rurales-en-el-pais (accessed on 2021 October 2021). [20]

MinTIC (2019), *Plan Nacional de Conectividad Rural*, https://mintic.gov.co/portal/715/articles-126217_recurso_1.pdf (accessed on 25 April 2022). [23]

MinTIC (2019), *Proposición 005 de 2019 Proyecto de Ley 231 de 2019 Cámara Radicado MinTIC 191059778*, https://www.camara.gov.co/sites/default/files/2020-05/RESPUESTA%20MinTIC.pdf (accessed on 22 October 2021). [21]

Niño, E. et al. (2020), "Boletín de indicadores en ciencia, tecnología e innovación del sector agropecuario 2019", http://hdl.handle.net/20.500.12324/36494. [63]

OECD (2022), "Broadband networks of the future", *OECD Digital Economy Papers*, No. 327, OECD Publishing, Paris, https://doi.org/10.1787/755e2d0c-en. [76]

OECD (2022), *Broadband Portal*, OECD, Paris. [35]

OECD (2021), *Bridging Digital Divides in G20 countries*, OECD Publishing, Paris, https://doi.org/10.1787/35c1d850-en. [26]

OECD (2021), "Broadband policy and technology developments", *OECD Digital Economy Papers*, No. 317, OECD Publishing, Paris, https://doi.org/10.1787/e273ff77-en. [34]

OECD (2021), *Mining Regions and Cities Case of Andalusia, Spain*, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/47062327-en. [64]

OECD (2020), *Making the Most of Technology for Learning and Training in Latin America*, OECD Skills Studies, OECD Publishing, Paris, https://doi.org/10.1787/ce2b1a62-en. [62]

OECD (2019), *OECD Reviews of Digital Transformation: Going Digital in Colombia*, OECD Reviews of Digital Transformation, OECD Publishing, Paris, https://doi.org/10.1787/781185b1-en. [77]

OECD (2019), "The road to 5G networks: Experience to date and future developments", *OECD Digital Economy Papers*, No. 284, OECD Publishing, Paris, https://doi.org/10.1787/2f880843-en. [33]

OECD (2018), "Bridging the rural digital divide", *OECD Digital Economy Papers*, No. 265, OECD Publishing, Paris, https://doi.org/10.1787/852bd3b9-en. [16]

OECD (2017), *OECD Telecommunication and Broadcasting Review of Mexico 2017*, OECD Publishing, Paris, https://doi.org/10.1787/9789264278011-en. [28]

OECD (forthcoming), *Enhancing Ubran-Rural Linkages in Poland*, OECD Publishing, Paris. [14]

Ookla (n.d.), *Speedtest*, https://www.ookla.com/ookla-for-good/open-data. [18]

Parra, S. (2021), "Una mirada a los daños del conflicto armado en la educación rural colombiana", Pontificia Universidad Javeriana, 20 September 2021, https://www.javeriana.edu.co/pesquisa/educacion-rural-en-colombia-conflicto-armado/. [44]

Pinstrup-Andersen, P. and S. Shimokawa (2006), *Rural Infrastructure and Agricultural Development*, World Bank, Washington, DC. [1]

Radinger, T. et al. (2018), *OECD Reviews of School Resources: Colombia 2018*, OECD Reviews of School Resources, OECD Publishing, Paris, https://doi.org/10.1787/9789264303751-en. [60]

Ramírez-Giraldo, M. et al. (2021), "La inversión en infraestructura de transporte y la economía colombiana", *Ensayos sobre Política Económica* 99, pp. 1-134, https://doi.org/10.32468/espe.99. [6]

Rechel, B. et al (2016), *Hospitals in rural or remote areas: An exploratory review of policies in 8 high-income countries*, Health Policy, https://doi.org/10.1016/j.healthpol.2016.05.011. [68]

Rutas del conflicto (2020), *Colegios de la guerra: otras víctimas del conflicto armado*, https://rutasdelconflicto.com/especiales/escuelas/. [50]

Soler, M. et al. (2019), "Transforming rural education in Colombia through family participation", *Journal of Social Science Education*, Vol. 18/4, https://doi.org/10.4119/jsse-3251. [57]

UNICEF (2021), *COVID-19 and School Closures*, https://data.unicef.org/resources/one-year-of-covid-19-and-school-closures/. [52]

Universidad de La Salle (2020), *Caso Proyecto Utopía*, Dirección de Filantropía, Universidad de La Salle, https://www.utopia.edu.co/wcm/connect/503e94a9-55b7-4c65-ab7a-d35f91c48884/Caso+Proyecto+Utop%C3%ADa+2020.pdf?MOD=AJPERES&CVID=noMwlaE . [55]

Usma, L. (2020), "La telemedicina llega a zonas rurales de Caldas con un satélite", El Tiempo, https://www.eltiempo.com/colombia/otras-ciudades/la-telemedicina-llega-a-zonas-rurales-de-caldas-con-un-satelite-545027. [72]

Vincent-Lancrin, S., C. Cobo Romaní and F. Reimers (eds.) (2022), *How Learning Continued during the COVID-19 Pandemic: Global Lessons from Initiatives to Support Learners and Teachers*, OECD Publishing, Paris, https://doi.org/10.1787/bbeca162-en. [58]

WEF (2019), *Global Competitiveness Report*, World Economic Forum. [5]

World Bank (2021), *Actuemos ya para Proteger el Capital Humano de Nuestros Niños : Los Costos y la Respuesta ante el Impacto de la Pandemia de COVID-19 en el Sector Educativo de América Latina y el Caribe*, World Bank, Washington, DC, https://openknowledge.worldbank.org/handle/10986/35276. [59]

World Bank (2021), *Building an Equitable Society in Colombia*, World Bank, Washington, DC, https://openknowledge.worldbank.org/handle/10986/36535?locale-attribute=en. [45]

World Bank (2018), *Procuring Infrastructure Public-Private Partnerships Report*, World Bank, Washington, DC, https://thedocs.worldbank.org/en/doc/256451522692645967-0050022018/original/PIP32018.pdf. [9]

Notes

[1] ISPs are companies that provide end users with a broadband connection, allowing them access to the Internet and associated services.

[2] Using the OECD exchange rate of 2020 of COP/USD 3 694.854.

[3] These departments are Antioquia, Bolívar, Boyacá, Caldas, Casanare, Cauca, Cesar, Córdoba, Cundinamarca, Huila, Magdalena, Meta, Nariño, Norte de Santander, Quindío, Risaralda, Santander, Sucre, Tolima and Valle del Cauca.

[4] These nine *Zonas Digitales* are still running up to date because they were late in being approved and therefore getting started.

[5] These departments are Bolívar, Casanare, Cauca, Cesar, Córdoba, Huila, Magdalena, Meta, Nariño and Sucre.

[6] The departments below the national average of connected homes where the *Digital Zonas* are to be installed are Arauca, Bolívar, Caquetá, Cauca, Chocó, Córdoba, Guaviare, La Guainía, Putumayo, Vaupés, Vichada.

[7] These cities are: Popayán, Florencia, Inírida, Leticia, Manizales, Mocoa, Puerto Carreño, San José del Guaviare, Santa Marta, Tunja and Yopal.

[8] The webpage ARES is currently being updated by INDAABIN but will soon be available again.

[9] A monolithic base station in the past was made up of a remote radio unit (RU) that is connected to a baseband unit (BBU) through a “fronthaul” interface. The BBU is composed of a centralised unit (CU) and a distributed unit (DU). The BBU contains digital modules that process signals from the RU and provides a communication interface to the core network, via backhaul. The RU is made up of antennas that receive and transmit wireless signals from the air interface (i.e. spectrum). Therefore, the BBU has both hardware and software elements, while the RU is composed of hardware. The 3GPP Release 15 disaggregated the baseband unit into a CU and a DU, with a separate RU. A virtualised radio access network (RAN) introduces virtualised network functions for the CU and the DU in the baseband unit, thereby decoupling hardware and software. However, the interfaces between RAN elements in vRAN architecture may be vendor-specific and therefore may not interoperate. With Open RAN, the open, non-proprietary and interoperable interfaces allow operators to select different vendors according to their needs. The figure below compares a traditional “monolithic” RAN deployment with an open RAN deployment, with a disaggregated functional split RAN from 5G 3GPP Release 15 and open interfaces, coupled with commercially available, off-the-shelf hardware (COTS) (OECD, 2022[76]).

[10] Please see OECD (2019[77]) for a more in-depth discussion of the topic.

[11] Communication operators furthermore have to pay a regulatory fee of 0.15% of revenues to fund the CRC, as well as contributions to the superintendence (*superintendencias*) and annual spectrum fees.

[12] Using the OECD exchange rate of 2021 of COP/USD 3 743.590. Paragraph 6 of Article 424 of the Colombian Tax Statute states that "smart mobile devices (tablets and mobile phones) whose value does not exceed twenty-two (22) Tax Value Units" are excluded from tax and therefore their sale or importation

does not cause sales tax. The equivalent of 22 Tax Value Units in 2022 is COP 836.088 (Government of Colombia, 2022[19]).

[13] Several OECD and non-OECD countries such as Chile or Viet Nam are currently implementing prioritised core curriculum to recover learning losses from the pandemic (World Bank, 2021[45]).

[14] The Tutorial Learning System (SAT) helps adults in rural areas of Colombia who have completed the full cycle of basic primary education to complete the baccalaureate through a methodology that integrates education with work and the processes of social and community organisation.

[15] This value is taken from the DANE Quality of Life Survey that is produced annually. This survey only measures traditional access to water (tap water through aqueduct) and does not take into account other alternative solutions that could be considered appropriate in rural areas, such as public standpipes.

5 Rural land policy and natural resources management

This chapter analyses land management in Colombia, with a particular focus on rural, ethnic and environmental issues. It starts by examining the issue of assigning and distributing formal land ownership, followed by an analysis of land use and territorial development planning in rural areas. Then, it explains the land framework of Indigenous and ethnic groups, as well as prior consultation protocols with Indigenous and ethnic groups for projects developed in their territories and that affect them. The last section considers how land can be mobilised to promote nature conservation efforts and associated economic opportunities that include the most socially vulnerable groups.

Assessments and recommendations

Main messages

The National Development Plan (PND) and the Integral Rural Reform (IRR) contain important diagnostics and pathways for tenure security and the reduction of conflicts in the countryside. Land restitution and distribution policies are fundamental to addressing the high levels of rural poverty, violence and deforestation in the country. The policy of adjudication of untitled public lands (*baldíos)* is a key instrument that has to be accompanied by the facilitation of land formalisation.

However, land distribution, restitution and formalisation policies and, in general, the implementation of the pillar of access to land in the RRI face important challenges to advance at greater speed. There is a pressing need to improve levels of information on the status and quality of lands, and efforts to solve conflicts arising from informal occupation. For example, the government does not know the share of its untitled public land (*baldíos*) and its occupation status, which is meant to be distributed in the land adjudication process. Because of that, the constitution of the Land Fund has remained incomplete. The Multipurpose Cadastre *Catastro Multipropósito* can be a powerful tool to provide the right information on land parcels and thus contribute to land formalisation and distribution processes, but its implementation needs to be strengthened.

Moreover, spatial planning instruments in rural areas lack co-ordinated policy action and consistent and widespread adoption. There is a variety of spatial planning instruments at different scales, such as Areas of Interest for Rural, Economic and Social Development (Zidres), Peasant Reserve Zones (ZRCs) and areas of environmental interest, but without a public policy to promote an integrated vision of development. The IRR and Development Programs with a Territorial Approach (PDETs), for instance, are loosely connected to programmes of land formalisation and distribution. Moreover, most areas that could have these types of instruments and zonings still do not have them. Co-ordination is needed to address fragmentation and duplication of spatial planning instruments in rural areas, while greater efforts must be made to implement these instruments where there are deemed necessary. These efforts are important to enable land that has been distributed, returned and formalised to be put to its best use, be it agricultural, environmental or community-oriented.

Unresolved issues in land constitution for ethnic groups and lack of clarity on territorial autonomy perpetuate socio-territorial conflicts. Colombia, as a multi-ethnic, multicultural social state of law, is committed to protecting Indigenous, Roma and Afro-Colombian communities (Constitution 1991). While the programmes that allow registered Indigenous reserves to execute their own resources (e.g. in education, healthcare and sanitation) are an important step towards autonomy, the issue of Indigenous Territorial Entities is yet to be fully addressed in the legal framework. Moreover, the process of constituting and enlarging Indigenous reserves and Afro-Colombian territories is considered to be opaque and slow. The relocation of occupants of ancestral lands and the lack of binding agreements to settle land claims definitively are structural problems affecting land constitution processes.

Enhancing environment conservation and its income-generating potential requires continuous efforts on law enforcement and stronger involvement of local communities in land use management. Deforestation, illegal mining and timber extraction create socio-territorial conflicts and push Colombia away from climate change mitigation efforts. Still, 99% of Indigenous lands in Colombia capture more carbon than they emit. The government could seek to leverage traditional land management practices of Indigenous groups and Afro-Colombians to preserve biodiversity, water resources and soil quality. Such practices can be associated with income generation opportunities to alleviate poverty levels and foster Indigenous development. Importantly, 71% of protected natural areas in Colombia have links to ethnic group territories, and these relations could be fruitful. Notably, programmes of payment for

ecosystem services (PES) can generate economic opportunities in rural areas, while ensuring an adequate level of environmental protection. Raising the amount of payment received in exchange for ecosystem services may generate stronger incentives for nature conservation.

Recommendations

- ***Strengthen policies of land distribution, restitution and formalisation*** by (Presidency, National Planning Department [DNP], Ministry of Agriculture and Rural Development [MADR] and National Land Agency [ANT]):
  - Prioritising financial and human resources to solve information gaps related to land by accelerating the implementation of the *Catastro Multipropósito*, strengthening the National Geographic Institute (IGAC) and improving the technical assistance to municipalities in the cadastre updating process. The government can consider transforming the cadastre into a permanent state policy, with dedicated budgetary allocation.
  - Ensuring that rural women and socially vulnerable groups lie at the forefront of the land distribution policy (in line with the peace agreement), continuing efforts to register requests of victims of the conflict in the land restitution policy and facilitating conditions for beneficiaries to register the land to support land formalisation (e.g. campaigns to inform about benefits of land formalisation or providing registry free of cost).
  - Improving co-ordination efforts across the different agencies and ministries in charge of spatial planning instruments to enabling the most adequate use of rural lands, according to their location and characteristics. Spatial planning instruments, such as ZRCs, Zidres or Plans for Productive and Social Management of Rural Property (POSPR), can be better co-ordinated to promote an integrated view of territorial development. This needs to be accompanied by:
    - Aligning priorities and investment choices across the different spatial planning instruments.
    - Setting minimum guidelines for land use plans, e.g. by establishing clear priorities or creating co-ordinated plans, such as urban-rural plans.
    - Ensuring that the definition of the agricultural frontier informs the design and implementation of environmental and agricultural instruments and policies.
    - Concluding the action plan for implementation of the Environmental Zoning Plan.
- ***Clarify the level of autonomy and land constitution for ethnic groups***, to boost social cohesion and regional development (Presidency, Ministry of Interior, ANT and other competent entities). This involves:
  - Increasing transparency in the constitution's administrative process and expansion of Indigenous reserves and Afro-Colombian territories to improve trust in the government and reduce social unrest. This can be done by:
    - Consolidating the Unified System of Information of Indigenous Territories with improved information on land, supported by the efforts of the *Catastro Multipropósito.*
    - Strengthening the National Land Agency open data portal, for it to function as a single (government-wide) record of the number of constituted reserves.
    - Reducing entry barriers by publishing a single list of documents that are necessary to file reserve constitution or expansion requests.
    - Co-ordinating the administrative process of reserve creation or expansion among the different government agencies from the beginning, instead of leaving most of the concertation efforts to the high-level committee at the end of the process.

  - Better communicating the stages of the administrative process of reserve creation or expansion to the interested parties, notifying them when the process goes to a different authority and for what purposes.
  - Delineating a clear and agile procedure to issue provisory protection of ancestral lands, under the terms of Decree 2333/2014.
  - Recognising ancestral lands and envisioning models of access and use of these lands by Indigenous and Afro-Colombian communities, as in the example of Decree 1500/2018.
- Strengthening consensual decision-making in land claims by establishing binding multi-ethnic dialogue tables to solve disputes. To this end, parties need to sign agreements to define the steps and object of negotiation and negotiations require clear mandates, with fewer possibilities of leaving the table without an agreement. This can reinforce existing dialogue mechanisms (e.g. the Table for the Resolution of Conflicts over the Use and Ownership of the Land).
- Concluding the new national protocol on the right of prior consultation, in order to better include Indigenous and other ethnic groups in regional development and further enable them to set their own priorities for development. To this end, the government should:
  - Propose the protocol to be enacted as a decree, based on a solid participatory process in which different concerns and multiple points of view are considered.
  - Include in the decree a basic methodological route for consultation with ethnic communities, with minimum procedures, stages, timeframes, formats and acceptable outcomes, while allowing for some flexibility. Ample information sharing should be embedded in each stage.
  - Grant the option for communities to adhere to the basic consultation protocol set in the previous point or to present their own protocol (community-specific).
  - Discuss widely whether or not direct, indirect and cumulative impacts will be included.
- Concluding the elaboration and approval of the special programme of access to land by Roma communities, as mandated by Article 17 of Decree 902/2017.

- ***Improve law enforcement and involvement of local communities in land use management*** to fight deforestation and promote environmental restoration (Presidency, Ministry of Interior, ANT, Ministry of Environment among other competent entities). This involves:
  - Allocating permanent funding and sufficient human resources dedicated to law enforcement in protected areas and their buffer zones.
  - Strengthening the support for peasants to access land and technical assistance to develop sustainable land practices and engage in conservation and restoration activities.
  - Supporting subnational governments in adapting their PES programmes into the national framework.
  - Better co-ordinating the process of signing Nature Conservation Contracts among different agencies and ministries.
  - Securing land rights of Indigenous and Afro-Colombian communities to allow them to participate in nature conservation and restoration efforts while unlocking new income sources.
  - Continuing to support Community Ecotourism Contracts, by investing in capacity development and knowledge-sharing.

- Including Indigenous groups and ethnic communities in the management and monitoring of protected areas, for instance through Shared Management Plans in which participation goes beyond the design stage or through joint governance bodies.
- Continuing supporting the commitment to the Escazú Agreement, by incorporating its provisions into the national framework of access to information, environmental justice and protection of environmental human rights defenders.

Introduction

The unequal distribution of rural land is a persistent historic factor and one of the main determinants of the armed conflict in Colombia, particularly affecting rural communities (Berry, 2017[1]; Karl, 2017[2]; Nilsson and Taylor, 2016[3]; Ariza, 2022[4]). During the armed conflict, forced displacements were recurrent, which intensified rural-urban migration and facilitated practices of illegal land grabbing and informal acquisitions (McKay, 2018[5]). According to the Central Register of Victims (*Registro Único de Víctimas*), more than 8 million events of forced displacement have taken place in Colombia since the beginning of the armed conflict until the present day.[1] Because of that, vast portions of land were abandoned. Many were occupied again, mostly informally: it is estimated that 14% of the entire country's territory has changed hands illegally, which amounts to 8.3 million hectares of land (McKay, 2018, p. 9[5]). This issue affected mainly rural areas, especially the remote ones, where a variety of Indigenous and Afro-Colombian groups inhabit.

In 2011, the country enacted the Victims and Land Restitution Law (Law 1448) to promote, among other objectives, the restitution of lands to people that had been displaced due to violence in the countryside. Land restitution is one aspect of the integral reparation due to victims. Beyond recognising the conflict and its victims, which was an important step in the historic process, the law aims to provide victims of the conflict with land ownership and sufficient socio-economic conditions to stay on their land. For that, a Special Unit of Restitution was created within the Ministry of Agriculture to manage property records and a special jurisdiction judges cases of individual and collective land restitution.

With the peace agreement's signature in 2016, further promises of land distribution and tenure formalisation came along (ICG, 2021[6]). Indeed, the issue of land distribution and ownership is one of the pillars of the proposed Integral Rural Reform (*Reforma Rural Integral*, IRR), which is the first section of the peace agreement. However, this is a complex process that faces, among others, challenges in the land information and co-ordination. Moreover, given the informal nature of the historical change of landowners, the process of land distribution has been more challenging than initially anticipated.

Speeding up the land distribution and restitution processes is a priority action to attain sustainable peace and unlock all of the potential of rural areas in Colombia. It is widely recognised in the literature that promoting land allocation and tenure security is necessary to overcome the challenges left by decades of armed conflict (Ariza, 2021[7]). It is not only that land enables development in rural areas but also that it may help to contain the effects of the intensified rural-urban migration of victims of the conflict and contribute to greater social cohesion.

Furthermore, land is a key asset to unlocking place-based economic opportunities associated with environmental preservation and climate change mitigation in rural areas. While traditional sectors such as agriculture and mining depend on access to land to develop activities, this also holds true for sectors such as the bioeconomy, renewable energy, ecotourism and forest conservation. The green economy can be developed under varying arrangements of land ownership, including collective ownership, concessions and user rights, which indicates that tenure security can coexist with environmental preservation.

With that in mind, the next sections are structured as follows. First, the issue of assigning and distributing formal land ownership is given consideration, followed by an analysis of land use and territorial development planning in rural areas. Then, the following sections explain the land framework of Indigenous and ethnic groups, as well as prior consultation protocols with Indigenous and ethnic groups for projects developed in their territories and that affect them. The last section considers how land can be mobilised to promote nature conservation efforts and associated economic opportunities that include the most socially vulnerable groups.

Box 5.1. Historic of the armed conflict in Colombia until the peace agreement

The internal armed conflict began in the 1940s. A civil war between the Colombian Conservative Party and the Colombian Liberal Party took place during the period 1948-58. Battles were fought primarily in rural areas and provoked peasant violence throughout Colombia. Institutional chaos and the lack of security in rural areas during this period caused millions of people to abandon their homes, land and other assets. In 1958, Liberal and Conservative Party elites, together with religious and business leaders, negotiated a political system known as the National Front. The two parties agreed to hold elections but to alternate power regardless of the election results. This pact lasted until 1990. This period of stability allowed Colombian Conservative and Liberal elites to consolidate their power, while also strengthening the military and inhibiting political reforms.

In the 1960s, several left-wing guerrilla groups formed in response to this monopoly on power, promising to overthrow the government, introduce land access for smallholders and eliminate social injustices and repression inflicted on the rural population. These groups included the National Liberation Army (ELN, formed in 1962), the Revolutionary Armed Forces of Colombia (FARC, 1965) and the People's Liberation Army (EPL, 1967). Over time, FARC emerged as the most powerful of these groups, acquiring de facto control over large areas of land in rural areas.

Between 1974 and 1978, the economy slowed and inflation increased rapidly. The country's social unrest created the conditions for illegal activities such as coca cultivation. The government promoted a national security policy to counteract illegal armed groups and, in the late 1970s, armed self-defence groups created by drug dealers and local landlords in response to kidnappings by left-wing groups, cattle theft and extortions began to appear in different parts of the country. In the 1980s, peace negotiations between the government and guerrillas failed, FARC continued its territorial expansion and self-defence groups mutated into right-wing paramilitary groups. The government eventually strengthened the presence of the army in the regions affected by the armed conflict while also promoting investment in infrastructure works in these areas to break their geographic isolation and marginalisation.

Drug traffickers and guerrilla movements sometimes accommodated and sometimes clashed with each other. Accommodation occurred when drug traffickers seized land in areas dominated by guerrilla groups and paid the guerrillas a tax in exchange for protection. Conflict occurred when drug traffickers who owned large properties refused to co-operate with guerrillas and used their own paramilitary armies to fight the guerrillas. When several powerful drug traffickers had accumulated large areas of land to establish coca crops and build laboratories to process cocaine, their private armies allied with self-defence groups and the Colombian military against the leftist guerrillas.

The year 2013 was marked by peace negotiations between the government and FARC, and by a wave of countrywide farmer protests. The peace negotiations were concluded in 2016 with the signature of the peace agreement, whose first chapter contains an Integral Rural Reform (IRR), with interconnected programmes related to land, productivity and environmental protection.

Source: OECD (2015[8]), *OECD Review of Agricultural Policies: Colombia 2015*, https://doi.org/10.1787/9789264227644-en.

The state of land use and related environmental challenges

Historic land concentration and the path of distribution

Land in Colombia is highly concentrated among few landowners. A common metric of inequality in land distribution is the Gini coefficient, which measures the dispersion of land distribution from 0 to 1, where 1 corresponds to total concentration. In Latin America, the Gini coefficient for land is 0.79, while in Europe it is 0.57, in Africa 0.56 and in Asia 0.55 (Ariza, 2021, p. 2[7]). In 2018, the average Gini coefficient of land ownership in Colombia was 0.868 (UPRA, 2018[9]) This makes Colombia the country with the third highest coefficient of land concentration in Latin America, after Paraguay and Chile (Ariza, 2022[10])

Land concentration refers to both ownership and size. The structure of private rural property is predominantly of large and medium properties: 41% of the area of private property in the countryside is parcels larger than 200 hectares (ha) and the other 40% qualify as medium-sized property of between 20 and 200 ha. The remaining 7 million ha are distributed between small and micro properties (ILSA, 2015[11]). The 81.711% of owners or possessors of private rural land with agricultural use hold less than 10 hectares of land each (UPRA, 2018[9]).The structure of land ownership has remained the same over the 20th century, despite several attempts to implement land redistribution (McKay, 2018[5]). One of the most important policies in this regard is the *Ley de Reforma Agraria* (Law 160 of 1994), according to which the government would finance market transactions of land in favour of those with no or little access to land. This policy, however, did not include goals of tenure formalisation or regularisation. This problem has only gained magnitude in the country. As of 2015, the rate of land tenure informality ranged from 50% to 79%, depending on the source (McKay, 2018[5]; UPRA, 2020[12]). According to UPRA (2020[12]), the land tenure informality rate reached 52.7% in 2019. Starting in 2010, the government has given more attention to the issue of land tenure informality, by designing a pilot project and establishing the Rural Property Formalisation Program led by MADR, which supported rural population in their actions before the judges to formalise the right of ownership or the reorganisation of titles.

Another important area of progress is one of land restitution. Law 1448/2011 created a special procedure to give land back to the victims of the conflict, both individually and collectively regarded. Indigenous and ethnic groups are recognised as historic victims of this process, which entitles them to special land restitution processes, besides the existing policies of land rights recognition (see next section). Likewise, in 2012, the government issued Law 1561/2012, which establishes a special verbal process to grant property titles to the material possessor of a small economic entity.

Departing from this scenario, land restitution, distribution and formalisation gained a prominent role in the negotiations that led to the peace agreement signed in 2016. In the agreement, access to land is regarded as a prerequisite for the transformation of the countryside and one of the four pillars in the IRR (Chapter 3). Besides restitution, ensuring access to land and tenure security to the victims of the conflict and to rural workers and peasants is also fundamental in the process of peace building, given the country's history of forced displacements and high concentration of land (Box 5.1). As mentioned before in this review, the IRR establised a programme of diagnostic and prioritisation of investments with a territorial focus, (PDETs). Under this programme, 16 regions were defined, comprising 170 municipalities, among the most affected by the conflict and with the highest poverty rates, in which the provision of public goods and services will be scaled up.

Albeit its central role, the IRR has been the point of the peace agreement most lacking in implementation (Kroc Institute for International Peace Studies, 2021, p. 8[13]). To illustrate, of the 36 legal reforms reputed necessary to implement rural reform, only 15 had been enacted by the end of 2021 (National Congress, 2021[14]). The Land Plan of the Integral Rural Reform was one of the last to be approved. Moreover, the rate of land formalisation corresponds to only 29.7% of the annual rate that would be needed to meet the goal of formalising 7 million ha of land within 10 years (National Congress, 2021[14]).

Environmental challenges related to land

The country also faces significant environmental challenges related to land, notably deforestation and land degradation. The main drivers of deforestation are the expansion of the agricultural frontier, illicit crops, displacement of people and settlements, infrastructure building, mining, wood extraction and forest fires (OECD/ECLAC, 2014, p. 30[15]). Notably, more than half of forest loss in 2005-10 was due to conversion to pasture for livestock grazing (OECD/ECLAC, 2014, p. 30[15]). In addition, in 2015-19, deforestation was substantially higher, when compared to the period of 2010-14 (ICG, 2021, p. 7[6]).

Moreover, deforestation, extensive cattle farming and agriculture all contribute significantly to greenhouse gas (GHG) emissions in the country. In 2019, agriculture accounted for 28.7% of total GHG emissions in Colombia, compared with 9.5% of the OECD average (OECD, 2021[16]). At the same time, agricultural production is affected by climate change. The Comprehensive Climate Change Management Plan (*PIGCC Agropecuario*) states that agricultural production presents a high level of risk in the face of climate change in 497 municipalities of the country and, in 5 municipalities, very high levels are evident.

Ethnic groups are particularly vulnerable to the menaces of deforestation and climate change. In 2017, more than 15% of the deforestation occurred in ethnic territories, whose main causes are illegal mineral extraction, illegal timber extraction and expansion of the agricultural frontier (DNP, 2019, p. 848[17]). To illustrate, according to the DNP, the departments of Amazonas, Chocó, Guainía, San Andrés and Vaupés, which count with a proportion of ethnic minorities above the national average, are the most vulnerable ones to climate change (DNP, 2019, p. 848[17]). Migratory dynamics of ethnic minorities have led to the loss of traditional knowledge in terms of biodiversity conservation (DNP, 2019, p. 848[17]).

To address these social, economic and environmental challenges, the integrated view of rural well-being proposed in Chapter 3 is necessary, by considering land as a basis upon which to promote nature conservation and climate change mitigation efforts and to diversify the economy with a sustainable vision. As affirmed in the Sustainability Pact of the National Development Plan of 2018-22, which is an umbrella policy for environmental and sustainable economic development issues, the state must protect natural ecosystems while fostering economic growth. This point will be further developed in this chapter.

Promoting land tenure security in rural areas

The peace agreement states that a “genuine transformation of the countryside” must be promoted, by, among other things, legalising and democratising property and promoting broader ownership of land (Colombia, 2016[18]). Besides the land restitution policy of the Victims Law, this includes the formalisation of land records and distribution of untitled land to the most vulnerable communities and rural women. These policies can contribute to addressing rural poverty and include Indigenous peoples and ethnic groups in regional development, while also diminishing the grounds for illegal economic activities that are responsible for recent surges in deforestation rates and land-related conflicts.

The IRR (Chapter 1 of the 2016 peace agreement) contains different instruments to mobilise land as an asset. These instruments intend to help the government achieve the goal to title 7 million ha of land and give access to other 3 million ha within 12 years from signature, preferentially to the greatest possible number of men and women living in the countryside, and who have no or insufficient land. The main instruments to ensure access to land and promote land formalisation are the following:

- **Land Fund (*Fondo de Tierras*)**: This is a permanent fund set up in 2016 to distribute free land to the rural communities most affected by poverty, neglect and conflict. It will distribute 3 million ha of land within 12 years. It is the main mechanism to promote access to land.

- **Large-scale land titling**: The government will progressively title land occupied or held by the rural population, giving priority to title of 7 million ha of small- and medium-sized rural properties located in PDETs and Peasant Economic Zones (ZRCs) within 10 years.
- **Comprehensive purchase subsidy and special purchase credit**: The government will grant subsidies and create a subsidised special credit line for the purchase of land by the victimised rural population, associations of agricultural workers and members of communities under resettlement programmes.
- **General Cadastral Information System (Multipurpose Cadastre- *Catastro Multipropósito*)**: The government will create and maintain a comprehensive and multipurpose registry of rural property within 7 years. The registry will contain information about the property (size and characteristics) and about the owners, disaggregated by gender and ethnicity.
- **Environmental Zoning Plan (*Plan de Zonificación Ambiental)***: The government will delimit the agricultural frontier and delineate macro-areas that require proper environmental management within two years.
- **Peasant Reserve Zones (*Zonas de Reserva Campesina*)**: The government will delimit zones to promote access to land by peasants and provide support to agricultural initiatives that are based on environmental and food sustainability.
- **Land restitution**: The right of forcibly displaced individuals and groups to return and receive formal title to their lands under the Victims Law is to be assured. The measures to do so integrate Chapter 5 of the peace agreement but will be co-ordinated with policies defined in Chapter 1.

Most of these instruments were part of the legal framework before the IRR. The Land Fund derives from the National Agrarian Fund (Decree 902/2017) and ZRCs were first enacted in 1994 with Law 160 (*Ley de Reforma Agraria*). Together, they are aimed at reducing violence and poverty in the countryside. ZRCs and Environmental Zoning Plans will be discussed below. In the next subsections, the policies of the multipurpose land cadastre system and of land distribution, restitution and formalisation will be discussed.

*The ambitious General Cadastral Information System (*Catastro Multipropósito*)*

The *Catastro Multipropósito* is a national policy designed in 2019 to create a national land registry system with georeferenced parcel-by-parcel information on land occupation and formalisation status.[2] It is a pioneering project that has never been attempted in Latin America. It requires that every land parcel in the country is adequately delimited, registered and accounted for. The result would be a comprehensive, updated and reliable cadastre, consistent with the real estate registry system, digital and interoperable with other information systems.

The cadastre in itself is an information system. Nonetheless, given the great level of detail and the readability of information, it is intended to contribute towards the design and implementation of spatial planning and territorial development policies, as well as land distribution and formalisation efforts. By flagging contradictory or missing land ownership and occupation data, the cadastre could help to identify and address land use conflicts. In this vein, if used to inform land policies, it may favour higher formalisation rates and higher levels of tenure security.

The implementation of the cadastre is a very ambitious policy that requires resources and time with a great level of policy co-ordination. At the national level, standardised data measurement techniques were designed: for instance, a national methodology to calculate land area in square meters was composed for the first time. The description of measurements and boundaries of old land titles, however, is pending an update as of 2022. The model to implement this policy needs the right balance between central co-ordination and decentralisation of data collection by assisting municipalities to conduct georeferencing and digitalise information systems. Some municipalities with sufficient technical, operative and financial capacity can greatly contribute to advancing this policy locally.

The creation of the land management system (*Sistema de Administración de Tierras*) is one of the goals of the National Development Plan (PND) 2018-2022. The government expected to have 60% of the country's area updated in the cadastre system by the end of 2022, which ought to include 100% of the 170 PDET municipalities. The government is aiming for 100% coverage by 2025.

Nonetheless, despite ongoing efforts, the *Catastro Multipropósito* is lagging behind this goal. As of 2022, 25.6% of the country's area is registered. The main challenges are linked to financial and human resources, as well as the delays imposed by the COVID-19 pandemic. The slow pace of activities can also be attributed to the low-capacity levels and inadequacy of information systems in municipalities (see example in Chapter 3). Indeed, until the end of March 2021, 96.14% of the country's municipalities have not created their cadastral system or still have to update it (National Congress, 2021[14]).

If the 2025 goal of 100% of coverage is to be achieved, greater capacity of the institutions in charge of this policy and prioritisation to complete data collection is required. Colombia needs to continue investing in technical and human resources at all levels of government. A dedicated budget must be allocated to ensure that the cadastre system becomes a permanent, regularly updated state policy. As the process advances, the national geographic institute IGAC has to focus on validating and monitoring data entries and help co-ordinate groundwork in local entities. To this end, investing in the professionalisation of the IGAC would be cornerstone support to this policy. Moreover, public registry offices, which are responsible for registering land transactions, will have a fundamental role in facilitating the update of the information of the cadastre.

Mexico's experience in investing in technology to modernise land public registries stresses the relevance of the need for strong political commitment to allocate enough financial resources and human capital to advance this agenda (Box 5.2).

Box 5.2. Best practices in public registries and cadastres in Mexico

Protecting property rights is an indispensable condition for growth and prosperity since they generate an adequate environment for transactions and provide legal certainty. The adequate implementation of property rights, as well as the definition of its owners, can mean higher security levels, more trust and easy access to investment and credit, as well as to innovation and development. Therefore, an efficient system for protecting property rights will guarantee the economic return of investments, generating economic growth and contributing to social development.

An effective modernisation necessarily requires reforming the legal framework. Yet, the essential and most important element for public property registries and cadastre modernisation is highest-level leadership and political support which must translate, among other things, into the availability of financial resources.

Modernisation efforts further require a clear programme, with readily defined and achievable objectives and, at a second stage, the use of information and communication technology must be included as tools to reach such objectives. The involvement of the staff in charge of modernisation tasks is key to achieving a shared vision and creating a sense of belonging, which contributes to the irreversibility of the improvements to be implemented.

Source: Adapted from OECD (2012[19]), *Mejores prácticas registrales y catastrales en México (Best Practices in Public Registries and Cadastres in Mexico)*, OECD, Paris.

Land distribution, restitution and formalisation

There are three main policies to address the interconnected issues of land concentration, tenure informality and restitution of lands to the victims of the armed conflict. Land concentration is addressed by the policy of adjudication of *baldíos*, to which the constitution of the Land Fund contributes, alongside the social management of property. Tenure informality seeks to be remediated by policies of land tenure formalisation on a large scale. Through these policies, occupants of private property receive a clear title to the land, which they must register with the Public Registry. Last, there is a special administrative and judicial procedure to return land to victims of the armed conflict, with a specific process to address collective claims, such as the ones from ethnic communities (Victims Law).

The Land Fund draws from a large pool of untitled public land (*baldíos*). Untitled public land is all land which, located within the territorial limits, lack any other owner and is therefore property of the state (Article 675 of the Colombian Civil Code). An unknown share of state lands is still classified as *baldíos*. They are public assets of the Nation and can be transferred to rural inhabitants in a situation of vulnerability, under the terms of Law 160 of 1994 and its modifying Decree 902/2017. As such, untitled public land can legally become the property of informal occupants.

Moreover, the government's policy under the peace agreement is to distribute untitled lands to peasants and private companies to develop productive activities, under the paradigm of social management of property (Resolutions 128 and 129 of 2017). In doing so, the government expects to reduce the number of untitled lands whilst supporting new economic activities. Land distribution, which is one of the main goals of the IRR, would go hand in hand with economic development. This is why this policy connects to the instruments of territorial ordering developed since 2016, with the creation of ZRCs and Zidres (Section below).

Since the Land Fund was created in 2016, the government managed to include 1.4 million ha of land as possibly available for adjudication. However, in large part, the government still has to define which lands are in condition to be actually transferred (PGN, 2021). For instance, areas that are occupied, located in zones of environmental preservation or lands claimed by Indigenous or Afro-Colombian populations have restrictions. As of 2020, the National Land Agency (ANT) did not know the occupation status of 82% of all the lands included in the Land Fund, mostly because the inventory of *baldíos* has not been concluded yet (PGN, 2021, p. §4[20]).

The second set of policies is the land tenure formalisation policy. Within the peace agreement, it was established that the state will carry out massive formalisation of small- and medium-sized rural property, in order to guarantee the rights of legitimate owners and possessors of land. Against dispossession of any kind, the national government will progressively formalise all land occupied or possessed by small farmers and peasants. Under the peace agreement, progressive access to land must be given in particular to women and socially vulnerable groups. To this end, the government has carried out normative reforms and structured administrative processes to facilitate the formalisation of private property and the titling of rural land.

Besides clearing titles, formalisation policies can translate into direct support for peasants and small farmers to register land. That is so because adjudications only become formal when the land is registered and it is the recipients of the land who must take this final step of land registration. However, many do not conclude the process of land transfer before the Public Registry and Instruments Office, either due to a lack of knowledge or financial resources (Duarte and Castaño, 2020[21]). The government needs to provide support to these recipients, which are peasants and victims of the conflict, to ensure that they formalise land, after receiving it. Specific policies should be implemented to facilitate land formalisation, for instance by signing partnerships with the public registry offices to make land registries of beneficiaries of state policies free of cost (Articles 4, 5 and 6 of Decree 902/2017).

A third set of policies relates to the imperative of reallocating victims of the conflict. According to the Victims and Land Restitution Law of 2011, all those who were displaced by the conflict have the right to return to the lands that they previously owned or occupied (Law 1448). The problem is that, since then, many lands have been informally occupied by other people. Occupants are entitled to compensation as long as they prove that they are buyers or occupants that acted in good faith. The process of land reclamation has been more disputed than initially anticipated and has generated social conflicts in some municipalities (ICG, 2021, p. 4[6]). In fact, to solve social conflicts that can emerge from land restitution processes, the Special Administrative Unit for the Management of Restitution of Dispossessed Lands (UAEGRTD) established a mechanism of social dialogue to consolidate dialogue scenarios around the restitution procedure in its different stages.

Table 5.1. The Land Fund: Progress so far (2021)

Description	Progress
Created in 2016 as a pillar of the Integral Rural Reform Main goals: • Distribute 3 million ha of land in 12 years • Formalise 7 million ha of land in 10 years 1 million hectares have entered the Fund.	• Half of the land in the fund is located in PDET municipalities • The occupation status of 82% of land in the fund is unknown • 18% of the 1 million hectares have been hander over and only 1.5% have been transferred to peasants without or with insufficient land • The formalisation rate is at 30% of what it should be to achieve the goal

Source: PGN (2021[20]), *Informe sobre el estado de avance de la implementación de las estrategias de acceso a tierras y uso del suelo rural contempladas en el Acuerdo de Paz*, https://www.procuraduria.gov.co/portal/media/file/Informe%20sobre%20Acceso%20y%20Uso%20de%20la%20Tierra%20Def%2007_01_2021.pdf; National Congress (2021[14]), *¿En que va la paz 5 anos despues de la firma del Acuerdo Final?*.

There is a special jurisdiction to promote victims' relocation, in a process that combines judicial and administrative stages. The process starts with the victim filing an administrative request of registry to the Land Restitution Unit (*Unidad de Restitución de Tierras*, URT), an entity attached to MADR. Once registered, the property's demand subsequently moves to the judiciary, to be decided by the specialised sector. This process is better explained in Box 5.3.

Box 5.3. Land restitution to victims of the armed conflict

The Victims and Land Restitution Law of 2011 adopted a restorative approach focused on the victims of the armed conflict. Under this law, the state took on the responsibility of providing reparations, including the restitution of properties, independently from the prosecution of those responsible for the victimising event.

According to the law, dispossessions presumably take place if the property had been affected by any legal transactions, whenever: i) violent events had taken place at the property or in neighbouring properties; ii) there is a high level of concentration of land ownership in the area; iii) one of the parties of the legal transactions has been extradited; or iv) the price paid to acquire the property was less than 50% of the true value of the property or legal transactions. Dispossession is also presumed to have taken place if the property began to be occupied by third parties between 1991 and 2011 (Law 1448).

The law created a special land restitution process divided into three stages: administrative, judicial and post-failure. The Land Restitution Unit (URT) is responsible for leading the administrative stage: gathering evidence, documenting the context of dispossession and submitting the lawsuit for land restitution. The victims' testimonial suffices to initiate the restitution process. Additionally, this unit is responsible for legally representing the victims in the judicial proceedings, which is the second stage. Then, the land restitution jurisdiction is responsible for assessing the evidence submitted by the URT,

requesting additional evidence and deciding upon the fundamental right to restitution. In the post-failure stage, restitution materialises and the land judge issues a sentence. The URT is in charge of the implementation of the productive project for the beneficiary.

The Victims and Land Restitution Law of 2011 aimed at resolving the shortcomings of the previous reparation mechanism, Justice and Peace. By means of clear evidentiary rules, an agency in charge of gathering the information (URT) and a jurisdiction specialising in restitution, a consistent system was created that may serve as a model for other restitution experiences.

Source: Adapted from González, L. et al. (2021[22]), "Who owns what in Macondo? The flexibilization of the rules of evidence in land restitution in Colombia", https://doi.org/10.1093/ijtj/ijaa029.

Historically, the pressure for rural land was resolved through marginal reforms, through the adjudication of *baldíos*. Land has been distributed without altering the structure of land ownership, which is of large- and medium-sized properties in the hands of few landowners. According to the General Attorney's Office (*Procuradoría General de la Nación*), these reforms have paid insufficient attention to environmental aspects, with insufficient regulation of land use and little support for the productive reconversion of degraded lands (PGN, 2021, p. §60[20]).

Today, the IRR focuses on the adjudication of untitled public lands (*baldíos*) but also foresees the need to promote land tenure formalisation, alongside the ongoing victims' restitution process. Put together, these policies offer a comprehensive answer to the interconnected challenges of land concentration, displacements and land tenure informality.

Nonetheless, the slow implementation of the IRR of the 2016 peace agreement is a testimony to the complicated nature of the attempted reforms. Outside of the judicial procedure of victims' restitution, addressing land conflicts through administrative land distribution has had limited reach. Moreover, the implementation of the *Catastro Multipropósito*, which is supposed to clarify land ownership status, is lagging.

In all, the main challenges to increasing access to land and promoting tenure security are the slow pace of land distribution and the persistence of land tenure informality. Only 17.8% of the total number of hectares entered into the Land Fund have been effectively handed over and only 1.5% have been handed over to peasants without land or with insufficient land (National Congress, 2021, p. 23[14]). In addition, only 29.74% of the amount of necessary land is being formalised per year in order to meet the goal of 7 million ha formalised in 10 years (National Congress, 2021, p. 23[14]). Interestingly, this progress refers mainly to privately owned land that was in a situation of informality, on which the respective title deeds have been granted, thus reducing land tenure informality.

The new government that took office in August 2022 has accelerated the land distribution and resitituion process. By November 2022, it had tittled additional 681 372 ha to peasants, Indginous and Afro-colombian communities. It had also established ambituous strategies to increase land distribution, for example though an historic agreement to buy land to private cattle ranchers.

If the implementation of policies of land distribution, restitution and formalisation occurs in a timely and effective manner, these policies have the potential to address the most pressing challenges of land insecurity and informality in Colombia. Yet, this policy in isolation won't attain lasting outcomes for rrual development. They must be coupled with efforts to regulate land use, protect the environment and provide infraestructure and services along with support to the productive reconversion of land. In this sense, spatial planning across different policy purposes – environmental, agricultural and ethnic diversity – can contribute to more efficient land allocation policies, as will be discussed in the following section.

Towards an integrated approach to territorial development

There is a hierarchy of territorial development and spatial plans at the national, regional (*departamento*), metropolitan and municipal levels (Table 5.2). These planning tools cover the whole territory within a given jurisdiction, i.e. both urban and rural areas, but can have differentiated focus and visions for each of them. Development plans contain a strategic vision and an investment plan to be achieved during each administration and therefore last four years. Land use plans express zoning regulations and specific land use criteria within a 12-year framework. Land use plans may create Rural Planning Units (*Unidades de Planificación Rural*, UPR), which are rural areas with differentiated objectives and land use criteria.

At the local scale, zoning is more detailed and plans tend to be finer-grained. The different terminologies of municipal land use plans –Territorial Management Plan (POT), or Territorial Management Scheme (EOT) – refer to population thresholds (Article 9 of Law 388 of 1997). Many municipal land use plans are outdated and lack disaster risk management tools (RIMISP, 2020, p. 19[23]). Overall, the implementation of local land use plans is lagging, due to the low level of administrative capacities (RIMISP, 2020, p. 36[23]).

Table 5.2. Basic planning instruments of land use and territorial development

Land use planning (12 years)	Level of government	Territorial development (4 years)
Constitution of 1991, National laws (such as LOOT) and Rural Agricultural Planning Unit (UPRA) guidelines	National	National Development Plan (DNP)
Land Use Department Plan (POD)	Departmental	Department Development Plan (DPP)
Strategic Metropolitan Land Use Plan (PEMOT)	Metropolitan	Integrated Metropolitan Development Plan (PIDM)
Land Use Plans (POT/PBOT/EOT and UPR)	Municipal	Municipal Development Plan (PDM)

Source: Adapted from UPRA (2018[9]), *Análisis de distribución de la propiedad rural en Colombia. Resultados 2018*, https://www.upra.gov.co/en/Publicaciones/Distribucion_2018.pdf

Starting in 2022, regions will become a new level of territorial planning in the country. Despite the fact that regions are foreseen as territorial entities since the 1991 Constitution; only with the Law of Regions (2019) can Administrative Planning Regions (RAP) be converted into Regional Territorial Entities (*Regiones Entidad Territorial*, RET). This way, a new layer of territorial planning will arise, which will require its own budgetary allocation, regulations and distribution of responsibilities. New land use and territorial development plans will have to be designed for this new territorial level.

These instruments, which are by nature broad and comprehensive, reflect a strategic vision for territorial development at each level of government. However, there is no public policy that integrates all of these land use planning instruments, as to promote an integrated vision of territorial development (RIMISP, 2020, p. 19[23]). This is done, albeit at a limited scope, through joint projects and alliances promoted by associative territorial entities (RIMISP, 2020, p. 84[23]).

In addition to this hierarchical system, there are planning instruments associated with specific objectives of rural development. The main ones are the Peasant Reserve Zones (*Zonas de Reserva Campesina*, ZRC), Areas of Interest for Rural, Economic and Social Development (*Zonas de Interés de Desarrollo Rural, Económico y Social*, Zidres), *Hojas de Ruta* from PDET and the Plan for Productive and Social Management of Rural Property (*Planes de ordenamiento social de la propiedad rural*, POSPR) (Table 5.3).

ZRCs are geographical areas that can serve to foment and consolidate the peasant economy (Article 80 of Law 160 of 1994). This involves sustainable agricultural production in combination with land distribution policies and environmental preservation. Importantly, where such zones exist, they can impede the advancement of the agricultural frontier (Humboldt Institute, 2017[24]).

Despite existing in the legal framework since 1994, only seven ZRCs have been created so far, of which only one was approved in the last ten years (PGN, 2021, p. §64[20]). In 2018, the National Land Agency (ANT) created the ZRC of the region of Montes de María 2, which encompasses the municipalities of Córdoba, Guamo, San Juan de Nepomuceno and Zambrano (Agreement 57). As of 2021, 20 other constitution requests awaited processing before the ANT (PGN, 2021, p. §64[20]). According to the ANT, the problem is that the information received at the time of solicitation has since become obsolete and needs to be updated. Lack of co-ordination between the relevant public entities has been mentioned as another challenge to the constitution of these zones (Humboldt Institute, 2017[24]).

Zidres are geographical areas suitable for agricultural development purposes. According to the Rural Agricultural Planning Unit (UPRA), 7 million ha of land are suitable to be zoned as Zidres. Yet currently there is only 1 Zidres in the country, in the municipality of Puerto López, Meta (OECD questionnaire, 2021). Productive projects approved within a Zidres are considered of public interest and enjoy special conditions and subsidies. Small farmers already using the land will have to become project associates to receive the same benefits.

POSPRs are a tool through which institutional action is organised in targeted areas for the development of programmes, projects and actions aimed at promoting equitable distribution, access to land and the security of rural property, promoting its use in compliance with its social and ecological function (Resolution 129 of 2017). The ANT enacts such plans in the zones of priority of the Catastro *Multipropósito*, in order to support the implementation of the IRR. In municipalities that have a POSPR, a policy of land formalisation and distribution based on the *Catastro Multipropósito* must be implemented. According to the General Attorney's Office (*Procuraduría General de la Nación*), the difficulties in the elaboration of the POSPR, among them the risk of intervening in areas plagued by the armed conflict, have slowed down efforts of land formalisation (PGN, 2021, p. §54[20]).

Table 5.3. Planning instruments for rural development

Zoning	Planning tool	Scale/Coverage	Objective	Entity in charge
Development Programs with a Territorial Approach (PDETs)	*Hoja de Ruta* of PDETs	One for each of the 16 subregions of PDETs	Diagnostic of socio-economic characteristics and strategy to prioritise sectoral investments with a territorial focus	Agency for Territorial Renovation (ART)
Zones of priority in the Cadastre System	Plan for Social Management of Rural Property (POSPR)	Municipal	Target policies of land formalisation, distribution and security	National Land Agency (Resolution 0129 of May 26 2017)
Areas of Interest for Rural, Economic and Social Development (Zidres)	Comprehensive Rural Development Plan (PDRI)	Municipal or inter-municipal	Diagnostic of areas with productive potential and plan for agricultural productivity	Rural Agricultural Planning Unit (Law 1776 of 2016)
Peasant Reserve Zones (ZRCs)	Sustainable Development Plan of the ZRC	Municipalities within a ZRC	Diagnostic of natural resources and land characteristics and strategy of land and environmental management	National Land Agency

Different national bodies (ANT, ART and UPRA) are in charge of elaborating on each of these plans, which contain long and detailed diagnostics of different territorial scales (Table 5.3). Despite being called "plans" with associated "zones", they do not have spatial planning functions. Instead, they serve as labels to target area-based policy interventions. Their horizon of action is highly varied and their capacity to be translated into action is limited.

These plans are connected to programmes of land formalisation and distribution, agricultural development and food security. While the POSPR is strongly connected to land formalisation programmes, for the other plans the link is less clear. According to the National Planning Department (DNP), between 2012 and 2020,

468 plans, programmes and projects were designed or implemented in rural territories. In addition, there are over 15 national entities with plans, programmes and projects with direct impact on the territory and 10 national entities whose actions have an impact on rural development (DNP, 2022[25]).

What is more, most of these instruments have experienced low implementation levels. Since its inception, only 1 Zidres has been created across the entire 7 million ha suitable for that instrument in the country. Despite that, yet another instrument is being envisioned for the same purpose of economic development, called Economic Development Zones (ZDEs). Only seven ZRCs have been created since 1994. Out of the 41 municipalities that have a POSPR, the policy of land formalisation and distribution within the Catastro *Multipropósito* has been developed and implemented in only one (PGN, 2021, p. §49[20]).

In all, without strictly regulating spatial and territorial development, these instruments add up to the existing plethora of municipal, metropolitan and departmental plans (Table 5.3). After all, they share a similar purpose: promoting territorial development and facilitating land distribution for productive purposes. As noted elsewhere, departments and municipalities already have several planning instruments that are seldom interconnected and have different implementation schedules (OECD, 2019[26]). The government has recognised that the various rural development plans, programmes and projects lead to duplication of functions, dispersion of resources and lack of inter-sectoral articulation (DNP, 2022[25]). Planning should be a facilitator, orienting budgetary allocation and investment choices, not an obstacle to action.

To overcome fragmentation, the different planning authorities must invest in policy co-ordination. As land delivers a variety of services which at present are the focus of different agencies and ministries, consistency in implementation requires co-ordination and integration across different agencies and activities (OECD, 2017, p. 71[27]). Plans with clear and feasible priorities can support the delivery of public services and infrastructure that bring better outcomes to rural dwellers, in the places most in need. The National Development Plan 2018-2022 and the IRR state that the government has to prioritise the areas most afflicted by the armed conflict and rural poverty.

To that effect, co-ordinating implementation efforts may foster an integrated approach to territorial development. So far, the ability to co-ordinate implementation efforts and monitor and evaluate policy results has been limited in Colombia, especially at the subnational level (OECD, 2019[28]). Insufficient financial and human resources constitute a barrier for that to occur. With more solid and widespread co-ordination efforts across policy sectors, the need for instruments that are designed in a piecemeal, ad hoc manner for specific zones, as happens today with ZRCs, Zidres and POSPRs, might even be superseded. This point will be further developed in Chapter 6.

The land rights framework of ethnic communities

Indigenous peoples and other ethnic communities have unique assets and knowledge that can help address global challenges such as climate change and loss of biodiversity and develop stronger local and regional economies based on biological resources and cultural diversity (OECD, 2019, p. 25[29]). In order to promote a more equitable and sustainable pattern of regional economic development, the government must improve Indigenous land tenure and create opportunities for Indigenous peoples to develop economic activities and benefit from projects that affect them (OECD, 2019, p. 33[29]).

Colombia, as a multicultural and multi-ethnic social state of law, is committed to the special protection of ethnic and cultural diversity (Article 7 of the Constitution of 1991). The three ethnic groups accounted for in the population census are: Indigenous; Afro-Colombian, Black, Raizal, Palenquera and Roma communities (DANE, 2019[30]).

According to data from the 2018 National Census on Population and Housing, the Indigenous peoples represent 4.3% of the national population, Afro-Colombian groups for 6.75% of the total and Roma communities for 0.01% (DANE, 2019[30]). There is no consensus around the official number of Indigenous

peoples in Colombia: while government data refers to 87 recognised peoples, the National Indigenous Organization of Colombia (ONIC) mentions the existence of 102 Indigenous peoples, including self-identified ones (Medina and Cárdenas, 2020[31]).

Indigenous communities organised in reserves and Afro-Colombian Community Councils (*Consejos Comunitarios*) are granted perpetual collective ownership of their lands. Indigenous reserve lands and Afro-Colombian territories cannot be sold or transferred to third parties. The ANT is responsible for constituting, amplifying and modifying Indigenous reserves and Afro-Colombian territories.

According to 2022 data from the ANT, there are 798 constituted Indigenous reserves in the country, representing 25% of the national territory (Table 5.4). The Indigenous reserves are mostly located in the departments of Amazonas, Cauca, Guainía, La Guajira, Magdalena, Tolima, Vaupés and Vichada, but small communities and reserves are present across the entire territory (Pérez, Yepes and Gómez, 2021[32]). The majority of requests to constitute Afro-Colombian lands are historically concentrated in the Pacific region. Until 2020, 196 territories of Afro-Colombian communities had been recognised in the country (Medina and Cárdenas, 2020[31]).

The national government has the obligation to create a special programme of access to land by Roma communities in Colombia (Article 17 of Decree 902/2017). A draft of the programme has been prepared but not yet approved. In its draft version, the programme guarantees Roma communities the right to the collective ownership of land, to be obtained through adjudication of *baldíos* and direct purchase of public lands. This process ought to be co-ordinated and promoted by the ANT.[3]

Table 5.4. Lands owned by ethnic groups in Colombia, 2020

Type of collective ownership	Number of collective territories	Area (ha)	Share of national territory (%)	Share of national population (%)
Afro-Colombian communities	196	5.389.118	4.7	6.75
Indigenous Reserves	798	28.701.905	25	4.3

Source: DANE (2019[30]), *Resultados del Censo Nacional de Población y Vivienda: Comunidades Negras, Afrocolombianas, Raizales y Palenqueras*, https://www.dane.gov.co/files/investigaciones/boletines/grupos-etnicos/informe-resultados-comunidades-narp-cnpv2018.pdf; ANT, (2022[33]) *Datos Abiertos, Resguardos Indigenas*, National Land Agency, https://data-agenciadetierras.opendata.arcgis.com/maps/f84afb113d3b4512be65305fd09aa7ee

Indigenous peoples: Clarifying territorial autonomy

The Constitution of 1991 stated for the first time that Indigenous territories are territorial entities like departments, municipalities and districts. As such, they have the same degree of autonomy to govern their territories, with their own authorities and administrative and fiscal powers as these other public entities (Articles 286 and 287 of the Constitution). This means that, under the Colombian Constitution, Indigenous territories are autonomous entities. Importantly, the autonomy of Indigenous peoples means territorial autonomy, that is, it only exists in reference to a specific territory (Semper, 2006[34]).

Moreover, according to the principle of ethnic autonomy, Indigenous communities can perform certain functions within their territories independently, such as education and healthcare (Constitution of 1991). Indigenous peoples have the right to exercise special jurisdiction within their territories (Article 246). There are special elements of autonomy in regard to language, education and culture too (Articles 68 §5 and 70 §2). In all, the legal framework makes it possible that Indigenous peoples to manage local matters within their territories.

The forms of exercising this autonomy, however, are heterogeneous and face important limitations. First of all, the constitution says that the configuration of Indigenous Territorial Entities was pending regulation in the Organic Law on Territorial Planning (Article 329). However, 20 years later, when such a law was

enacted (Law 1454/2011), it remained silent on this matter. This legislative omission is one of the factors slowing down the progress of Indigenous rights and has become one of the main claims of the Indigenous movement.

While Indigenous Territorial Entities are not regulated, the question of what constitutes Indigenous autonomy and how can it be exercised has become central in the public debate. The only official instrument to constitute Indigenous lands is reserve creation. Reserves (*resguardos*) are community lands collectively owned by Indigenous communities. This fact could lead to the interpretation that reserves are the Indigenous territories where Indigenous Territorial Entities exert their autonomy. These concepts, however, do not coincide, although a clear differentiation has been largely absent. In an unclear redaction, the Constitutional Court has ruled that: "reserves are something more than simply land but something less than Indigenous territory" (Ruling T606/2011).[4]

In all, prevails the understanding that, while Indigenous Territorial Entities as such lack a specific legal framework, reserves are the territories where Indigenous peoples can exercise the autonomy granted by the constitution (Semper, 2006[34]). For instance, it is widely accepted that Indigenous peoples can create special jurisdictions within reserves, in the form of Article 246 of the constitution.

In this sense, the Constitutional Court has ruled that the state should maximise Indigenous autonomy in the domains where it is constitutionally ensured (Semper, 2006[34]). There have been advances in the past years that point toward a concretisation of autonomy in some domains. For instance, the reserves and their governing entities can create Life Plans (*Planes de Vida*), a strategic planning instrument to regulate their territory. Another area of progress is Indigenous education, with many reserves having bilingual teachers and special curricula.

Furthermore, the government has enacted a policy to allow Indigenous reserves to receive and execute resources directly, which constitutes an important step towards greater fiscal and budgetary autonomy (Decrees 1953/2014 and 632/2018, as allowed by Transitory Article 56 of the constitution). Under the current system, local governments receive national resources and then transfer them to Indigenous reserves.

Through Decree 1953 of 2014, Indigenous communities can receive and execute resources from the general system of participation, in order to implement their own policies in the sectors of healthcare, education, water and sanitation. Indigenous communities within constituted reserves that are willing to participate must require authorisation from the Ministry of Interior. In 2020, 41 constituted reserves had been endorsed for the direct execution of resources (DNP, 2020, pp. 31-32[35]).[5]

Decree 632 of 2018 allows Indigenous communities in the departments of Amazonas, Guainía and Vaupés to execute and administer state resources without intermediaries. This decree sought to address the gap of "non-municipalised areas", within which no formal local governments existed (OECD, 2019c, p. 27).

These policies can effectively improve the fiscal management powers of Indigenous groups. To ensure its enlarging, the government should facilitate the submission of accreditation requests by willing Indigenous communities. Importantly, they will need adequate capacities to practice their extended fiscal management rights, once endorsed (OECD, 2019, p. 55[36]). In Canada, for instance, the government has capacity development programmes to assist Indigenous peoples in consolidating their fiscal management systems (OECD, 2019[29]).

Notwithstanding, these policies do not replace the need to be clear about the extent of Indigenous autonomy. Indeed, the autonomy of Indigenous communities could go beyond resource allocation and translate into the ability to design and implement their own policies, including land use planning and territorial development. So far, however, the government has adopted a piecemeal and reluctant approach to reforms, having recognised limited self-management powers for Indigenous communities.

Land rights of Afro-Colombian communities

The ethnic group of Blacks, Afro-Colombian, Raizals and Palenque populations (henceforth Afro-Colombian communities) is med up of 4.67 million people, which represent 6.75% of the Colombian population (DANE, 2019[30]).Law 70 of 1993 defines Afro-descendant communities on the basis of culture, history, livelihoods and geography. This law recognises Afro-Colombian communities as an ethnic group entitled to special protection of their culture and ethnic diversity. Yet, autonomy to execute resources in health, education and sanitation is not fully regulated (e.g. Chapters IV, V and VI of Law 70 of 1993 have not been fully developed).

Law 70 of 1993 established that Afro-Colombian populations have the right to the collective ownership of historically occupied lands in accordance with their traditional practices of production. The lands are those identified as untitled public lands (*baldíos*) located in the Pacific Basin and riparian lands alongside the rivers of the Pacific Basin. Although the law explicitly recognises Afro-Colombians land rights in the Pacific region, collective ownership can also be granted elsewhere in the country, for areas "with similar characteristics".[6] As happens for Indigenous lands, the lands of Afro-Colombian territories cannot be sold, transferred or given as collateral.

The ANT is responsible for adjudicating lands for Afro-Colombian communities. Most land adjudications took place between 1995 and 2003, and 196 territories have been constituted so far. As of 2017, 271 requests of titling were pending, most of them in the Caribe region (Arango, 2017[37])

The holders of the collective land rights are Community Councils (*Consejos Comunitarios*) (Article 5 of Law 70/1993). According to Decree 1745 of 1995, community councils are the maximum administrative authority within the territory. They exert the functions to protect land rights, preserve cultural identity and natural resources, choose legal representation and compose internal conflicts. They can delimit and assign areas within the territory. They do not have, however, attribution to implement their own policies or execute public resources.

The Constitution of 1991 does not expressly mention the right to self-governance of Afro-Colombian communities and there is no equivalent to the autonomy level of Indigenous Territorial Entities. In this sense, the autonomy of Afro-Colombian communities is more limited than that of Indigenous groups, at least in the law.

Protecting ethnic communities and their lands

Securing lands for ethnic communities is a means to promote ethnic and cultural diversity, protect biodiversity, endorse climate change mitigation efforts and foster a more equitable and inclusive regional development (OECD, 2019[29]). According to the Constitution, Laws 160/1994 and 70/1993, the Colombian state can transfer the ownership of *baldíos* to Indigenous and Afro-Colombian communities that historically occupy their ancestral lands, including areas from where they might have been forcibly displaced. Furthermore, they can receive ownership of the lands that are necessary for their economic and cultural development.

The figure of Indigenous reserves has existed in Colombia since colonial times. In 1821, all reserves were dismantled but, in 1890, a new law reinstituted them into existence (Semper, 2006[34]). The majority of efforts to formalise Indigenous reserves were concentrated between the 1960s and 1980s (Arango, 2017[37]). According to the open data of the National Land Agency (ANT), by June 2022, there were 812 registered Indigenous reserves in Colombia, including colonial reserves and modern ones (ANT, 2022[33]).

The ANT, which inherited the attributions of the extinct bodies INCORA and INCODER, is responsible for the constitution of Indigenous reserves and Afro-Colombian territories. Indigenous reserves may also be enlarged or restructured. Enlarging of reserves can occur if the constituted area is not sufficient for Indigenous cultural and economic development or does not include the totality of traditional lands (Article 1

of Decree 2164/1995). Restructuring (*saneamiento*) of reserves may take place for colonial reserves with clear titles.

Several processes of demarcation, enlarging and restructuring are underway in the ANT. To allocate ancestral lands to Indigenous and Afro-Colombian communities, the ANT favours the mechanisms of adjudication of untitled public lands (*baldíos*) or acquisition of unoccupied private lands. Yet, due to the high technical complexity and the existence of land conflicts, it is not uncommon that such processes take decades to be completed. Indeed, the major impediment to the effectiveness of Indigenous rights in Latin America is the absence or slow pace of policies and procedures of land demarcation (OECD, 2019, p. 224[29]; Gilbert,, 2016[38]).

There is a shared perception in the Indigenous and Afro-Colombian movement that the process of land constitution is slow and opaque. To these groups, the recognition of land rights represents not only a fundamental right enshrined in their cultural identity and world view but also the hope of greater protection against dispossession and displacement.[7] According to Indigenous leaders, the process goes back and forth between several different government agencies, which multiplies bottlenecks. The different steps of the process are not clearly communicated to the interested parties.[8] While the process prolongs over time, the situation of their lands perishes, with the perpetuation of illegal practices such as deforestation, timber extraction and mining.

In addition, one major caveat of the current policy is the fact that the ANT does not constitute or amplify reserves in areas occupied by other social groups or where land use conflicts exist. Actually, the ANT carves out the disputed lands from the territorial limits of reserves, alleging that reallocation measures are expensive and that occupants are social actors with legitimate claims over rural lands (Medina and Cárdenas, 2020[31]). If, on the one hand, ethnic communities do not receive the territories that correspond to their ancestral occupation, on the other, the right to ancestral lands does not cease to exist, which perpetuates social conflicts in rural areas.

One paradigmatic example of the recognition of ancestral lands is Decree 1500/2018. This decree redefined the ancestral lands of the Arhuaco, Kankuamo, Kogui and Wiwa Peoples of Sierra Nevada, in the system of sacred spaces Línea Negra. The four Indigenous peoples have the right to access these sacred spaces, which will receive special protection for their cultural and spiritual value. Any measures adopted by the government in relation to these areas must take the Indigenous perspective into consideration. According to the National Commission of Indigenous Territories (CNTI), this example should be replicated for other Indigenous peoples.[9]

This issue of ancestral land rights has often been addressed in the judiciary, either as part of the victims' restitution jurisdiction or in the Constitutional Court. While judicial orders mandating territorial allocations corroborate the state's duty to protect ethnic communities, administratively they perpetuate problems, since the ANT needs to follow a separate path to fulfil judicial claims, while the ongoing procedures lag. Although this shows the challenging context of recognition of ethnic lands, individuals and communities will always have the right to claim their rights in the judiciary, which means that policy-wise court orders have to be streamlined into the administrative procedures, not resisted.

Given this scenario and considering the need for speedier recognition of Indigenous claims over their ancestral lands, the government enacted Decree 2333/2014. Under this decree, the government can issue a resolution of provisory protection of occupied ancestral lands. Although technical visits are foreseen, the procedure is simplified and is to be concluded in a matter of months, instead of years. The resolution of provisory protection is inscribed in the land registry books, which makes the status of ancestral lands known to all and prevents undue adjudications. Since 2014, more than 180 requests for provisory protection were presented but none have been granted so far.[10]

Besides the slow pace and inadequate limits of the constitution of new reserves, historically Indigenous lands have been disproportionally concentrated in areas with the highest rates of violence and

displacement. Data shows that almost 50% of Indigenous lands are located in the 150 municipalities most heavily affected by the armed conflict (Arango, 2017[37]). Government data confirms that 59% of forced displacements have occurred in lands of ethnic groups (National Congress, 2021[14]).

In light of this, the state must ensure adequate protection of ethnic lands and their population (OECD, 2019, p. 225[29]). The Ethnic Chapter of the peace agreement constitutes a landmark for such claims. First of all, it recognises that the historical process of colonisation, violence and dispossession have disproportionally victimised Indigenous peoples. This recognition entitles Indigenous communities to collective reparation under the Victims Law. Second, there are mechanisms for the legal protection and security of land and territories possessed or owned ancestrally or traditionally by Indigenous groups.

Yet, protection also means guaranteeing the physical safety of Indigenous leaders. It is estimated that between 2017 and 2019 alone, i.e. after the peace agreement was signed, around 75 Indigenous leaders were assassinated in the country (ICG, 2020, p. 14[39]). Plans of protection and institutional channels do exist but their implementation levels can be considered low, so much so that a "protection crisis" is said to be in place (WOLA, 2021[40]). The government needs to adopt precautionary measures, strengthen monitoring of threats and attacks and invest in investigation efforts (WOLA, 2021[40]).

To this effect, one important measure that was recently adopted is the ratification of the Escazú Agreement. Colombia signed the regional agreement in 2019. While the law of ratification failed to be approved in the National Congress in the subsequent years, it was finally approved in the second semester of 2022. The Escazú Agreement is the first legally binding instrument in the world to include provisions on environmental human rights defenders and is also the first environmental agreement adopted in Latin America and the Caribbean (Box 5.4).

Box 5.4 The Escazú Agreement: A landmark for the protection of environmental defenders

The Escazú Agreement, which was negotiated by countries in Latin America and the Caribbean, entered into force on 22 April 2021. This agreement enshrines the right of every person of present and future generations to live in a healthy environment and their right to sustainable development. It is the region's first environmental treaty as well as the world's first agreement with provisions on human rights defenders in environmental matters, an issue of particular importance in the region due to risks for advocates and activists.

The agreement guarantees the right to access environmental information and participate in environmental decision-making, thereby promoting access to information and access to justice. While recognising the right to a healthy environment, the agreement requires states to prevent and investigate attacks against those who protect and defend environmental rights. The agreement acknowledges the significance of the work carried out by environmental human rights defenders and obliges states to establish guidelines on appropriate and effective measures to ensure their safety.

The signing and ratification process has been slow. To date, 24 countries have signed it, of which 13 have also ratified it: Antigua and Barbuda, Argentina, Bolivia, Colombia (in 2022), Ecuador, Guyana, Mexico, Nicaragua, Panama, Saint Vincent and the Grenadines, Saint Kitts and Nevis, Saint Lucia and Uruguay. Countries that have not ratified the agreement include Chile and Costa Rica, which served as negotiation co-chairs.

Source: Adapted from IISD (2021[41]), "Escazu Agreement takes effect, enshrining right to sustainable development", https://sdg.iisd.org/news/escazu-agreement-takes-effect-enshrining-right-to-sustainable-development (accesed on June 2022); Universal Rights Group (2021[42]), "The Escazú Agreement: A landmark regional treaty for environmental defenders", https://www.universal-rights.org/contemporary-and-emerging-human-rights-issues/the-escazu-agreement-a-landmark-regional-treaty-for-environmental-defenders/. (accesed on June 2022).

Managing land conflicts in a transparent and effective manner

The Colombian countryside is a historical locus of socio-territorial conflicts. Forced displacements due to armed conflict, land mines, unlawful occupation of untitled public lands (*baldíos*) and illegal activities of natural resource extraction have caused and perpetuated conflicts. Knowingly, the land registry system is not accurate or updated. For instance, *baldíos* records disappeared on closing down INCORA and the ANT up to 2021 does not know the occupation status of 82% of *baldíos*, since there is no general inventory. Concerning land disputes per se, some relevant causes include: unclear land titles and ill-defined territorial limits; coincident land claims of ethnic groups; and inconsistent policies regarding ancestral lands of ethnic groups that are occupied by other social groups (Medina and Cárdenas, 2020[31]).

As mentioned elsewhere, the policy of updating and consolidating land registries can greatly contribute to solving ongoing and diminishing future socio-territorial conflicts. Since 2016, due to the peace agreement, the Catastro *Multipropósito* gained new momentum, with efforts being localised in municipalities most affected by the armed conflict. In parallel, other policies of the land registry have been put in place. In 2015, a unified system of information on Indigenous territories was created, as a result of the policy enacted in Decree 2333/2014 (see section above). It is unclear, however, how these parallel efforts contribute to or are co-ordinated with the consolidation of the Catastro *Multipropósito*.

The process of constitution and enlarging of Indigenous reserves and Afro-Colombian territories is considered to be opaque, slow and inadequate. Bearing in mind the financial and human resources limitations, there are nonetheless incremental and even systemic changes that could be promoted. For that to happen, first there must be a consensus among the ANT and the other ministries and agencies involved that the administrative process needs to become more linear and transparent, and the vision of land supply more positive in terms of finding solutions to provide land. Avoiding a discourse that “there is not enough land” in the country will ease interaction among ethnic groups. Likewise, procedural overture, to share information and allow the participation of the interested parties, will foster trust, a common understanding of the challenges ahead and increase social legitimacy.

Regarding incremental changes, the government could direct stronger efforts to:

- Consolidate the unified system of information of Indigenous territories with the *Catastro Multipropósito*, alongside efforts to conclude the protocol of prior consultation for data collection and technical visits in Indigenous territories.
- Amplify the open data portal of the ANT, to function as a single (government-wide) record of the number of constituted reserves, ongoing requests and requests awaiting admission, as well the length of processes and involved agencies.
- Reduce entry barriers by making easily accessible a single list of the documents needed to file reserve constitution or enlarging requests.
- Co-ordinate the administrative process of reserve creation or enlarging among the different government agencies from the beginning, instead of leaving most of the concertation efforts to the high-level committee at the end of the process.
- Better communicate the stages of the administrative process of reserve creation or enlarging with the interested parties, notifying them when the process goes to a different authority and for what purposes.
- Delineate a clear and agile procedure to issue provisory protection of ancestral lands, under the terms of Decree 2333/2014.
- Strengthen technical assistance for agriculture development in ethnic territories and support the elaboration of land use plans. The sustainable management of allocated lands can lead to a more efficient pattern of occupation and development, and reduce requests for enlarging of territories.

To manage socio-territorial conflicts in a more effective manner, two structural problems have to be addressed: the reallocation of occupants of ancestral lands and the lack of binding agreements to settle land claims. Today, the government rarely reallocates occupants, due to the high financial and political costs of doing so. This perpetuates conflicts among social groups in rural areas. Concerning land claims, requests for ancestral lands can coexist with requests for land for economic and cultural development, without a clear prioritisation between them and no obligation of forfeiting. This way, land claims are never "closed" in definitive, which makes it difficult for the government to securely allocate lands to other social groups with legitimate claims, such as small farmers and peasants.

Reallocation of occupants is traditionally undertaken by paying cash compensation to occupants or providing them with land in a different location. The cost of compensation however tends to be high and the reallocation is not always regarded as satisfactory, for instance in the case of ethnic groups with competing land claims. In some countries, such as Brazil, the government has the power to expropriate land in favour of ethnic groups, which reduces the financial cost while augmenting enforceability. In a context of uncertain land titles and multiple competing claims, however, this strategy might increase conflicts, instead of reducing them.

Given that the government can use the policy of adjudication of *baldíos* to solve disputes, the cost of adjudicating *baldíos* is considerably lower than the cost of purchasing lands from private actors. For that to happen, the government needs a more accurate record system of *baldíos* and interested parties must be willing to accept land in different locations. For instance, small farmers that occupy ethnic lands informally can receive *baldíos* in other areas, since they do not have the same right to ancestral lands. Importantly, the delimitation of the agricultural frontier and the spatial development plans of rural areas can facilitate the identification of suitable areas.

The most significant direction to be taken would be to strengthen consensual decision-making. Currently, the National Land Agency (ANT) has mechanisms of inter-agency co-ordination and multi-ethnic dialogue tables, for example the Table for the Resolution of Conflicts over the Use and Ownership of the Land. They are very promising since they can bring together competing parties to reach concerted solutions that have higher social acceptability and therefore are easier to implement. However, as they are designed now, social dialogue is an optional, voluntary mechanism that does not necessarily need to achieve a solution. As such, high expectations are created around solving the conflict but long-lasting negotiations lead to participation fatigue and cause some actors to leave the table to continue pursuing other strategies, such as judicial litigation.

Multi-ethnic negotiations could become a structured institution with attribution to solve land claims definitively. For that to happen, parties must sign pre-negotiation agreements to define the steps and object of negotiation. The negotiation process must have a clear mandate, in which parties are committed to reaching a joint solution. The possibilities to leave the negotiation table must be very limited, if not non-existent. The results of the negotiation process must be binding to the parties. For instance, negotiations can result in the recognition of ancestral lands, with the condition that ongoing requests of reserve enlarging are relinquished. Occupants may agree to be reallocated to a different area and abandon competing claims. Possible outcomes may include but are not be limited to self-governance powers, financial compensations, the definition of special sites of protection and protocols of prior consultation. In all, the range of possibilities is quite ample, as the example of modern treaty-making in Canada shows (Box 5.5).

Negotiations could effectively address long-lasting socio-territorial conflicts but they cannot be mistaken for a "quick fix". A successful negotiation takes time to be successfully completed. The experience of Canada shows that consultation processes must be broad enough so that affected parties do not feel excluded. As a consequence, strategies to circumvent obstacles and avoid negotiation fatigue must be envisioned. Furthermore, the government would need to capacitate civil servants as negotiators, dedicate

itself to keeping the negotiation table open and create an independent and ongoing monitoring mechanism, to ensure that the agreement is adequately implemented (Box 5.5).

Box 5.5. Modern treaty-making in Canada

Under the 1975 Comprehensive Land Claims Policy, the government and Indigenous communities can sign agreements to recognise Indigenous land rights not comprised by historic treaties. They are based on Indigenous peoples' traditional uses and occupation of lands and can include: land ownership; land, water, heritage, environment and wildlife management; financial compensation; self-governance powers; economic development strategies; and resource-sharing schemes. Since 1975, partners have signed 26 comprehensive land claims and four self-government agreements. Of the 26 signed agreements, 18 included provisions related to self-government.

Key lessons of modern treaty-making in Canada are the following:

- *Sign a pre-engagement agreement*: The rules and procedures of negotiation must be clearly defined, from the composition of the negotiators' team to the meeting schedule. Having a timeframe helps to set expectations, while the joint deliberation about the rules of negotiation renders the process more legitimate.
- *Provide financial assistance to Indigenous negotiators*: Keeping a high-skilled group of negotiators working intensely for what can be long periods of time is costly, and so is producing maps, deeds and other evidence. It is important to address the power imbalance inherent in negotiating with the government. Starting in 2018, the Government of Canada replaced all loans for comprehensive claims negotiations with contribution funding. In 2019, the Government further invested $1.4 billion to forgive all outstanding comprehensive land claim negotiation loans, and reimburse those that have already repaid their loans following the conclusion of their comprehensive land claim settlement agreement.
- *Legitimate parties capable of decision-making*: The parties sitting at the table must assume responsibility for what they negotiate. The government must honour the commitments made, and the Indigenous leadership must be considered legitimate by their respective group.
- *Broad consultation process*: Indigenous negotiators and leaders must consult broadly and regularly with the Indigenous population concerned by the agreement. This contributes to greater ownership of the agreement and can facilitate implementation.
- *Compensation for past wrongs*: Treaty-making can be used to address past wrongs. It can encompass land restitution but, if not possible, financial compensation can be agreed upon.
- *Well-defined implementation plan*: The agreement must contain not only obligations but also the timeframe and means of implementing them. Treaties that set obligations but remain vague about how they can be fulfilled can fall into an implementation vacuum.

Policy innovations have been made in this area to be more flexible and respectful of community priorities. For example, a key policy innovation was the creation of Recognition of Rights Discussion Tables. At these tables, Canada and Indigenous groups can explore new ideas and ways to reach agreements that will recognize the rights of Indigenous groups and advance their vision of self-determination for the benefit of their communities and all Canadians. These discussions are community-driven and respond to the unique rights, needs and interests of First Nations, Inuit and Métis groups where existing federal policies have not been able to do so.

Source: Adapted from Crown-Indigenous Relations and Northern Affairs Canada (2021[43]) Government of Canada (2021), *Grants to reimburse treaty negotiation loans to indigenous groups who have settled a comprehensive land claim*, https://www.rcaanc-cirnac.gc.ca/eng/1604958267840/1604958306918 (accesed on November 2022).; OECD (2020[44]), *Linking Indigenous Communities with Regional Development in Canada*, https://doi.org/10.1787/fa0f60c6-en; Crown-Indigenous Relations and Northern Affairs Canada (2015[45]), *Comprehensive Claims*, https://www.rcaanc-cirnac.gc.ca/eng/1100100030577/1551196153650 (accesed on November 2022).

Prior consultation of ethnic communities in regional development

Prior consultation is a right guaranteed in Convention 169 of the International Labour Organization (ILO), which was ratified by Colombia. The main objective of prior consultation is to enable ethnic communities to set their own priorities for development (ILO, 2008[46]). More than sequential ad hoc consultations, it is a process in which the participation of ethnic communities in regional development is substantially augmented. The goal of participation is to promote projects, works and activities that improve the well-being of these communities in rural areas.

In Colombia, this principle is already embedded in various planning instances. For instance, at the national level, Indigenous and Afro-Colombian groups are consulted in the elaboration of National Development Plans. At the local level, Indigenous authorities and community councils can establish their own development plans, such as Life Plans (*Planes de Vida*). Importantly, the implementation of PDETs must include a special mechanism of consultation, in order to incorporate the ethnic and cultural perspectives in the territorial-based approach (Colombia, 2016[18]). The consultation concerning development projects that affect these groups is therefore another instance under a broader framework of participation.

As expressed in the Presidential Directive 10 of 2013, the Colombian state must guarantee ethnic communities' participation and access to information on projects, works or activities that are intended to be carried out in their territory and that affect them directly. Development projects have cumulative social, economic and environmental impacts that can harm Indigenous peoples' livelihoods, social reproduction and conservation goals. By identifying the impacts generated on their collective practices as well as measures to mitigate, correct or compensate for these impacts, ethnic communities can take an informed decision about what type of development is compatible with their ethnic, cultural, social and economic integrity.

The consent of ethnic communities is required specifically in the following three cases: when communities face a survival risk as a result of a project; when there is toxic waste release; and when the project requires relocating communities from their territories (Presidential Directive 10, 2013). For all other cases where ethnic communities might be directly affected by projects, they have the right to be consulted but their decision does not bind the authority in the final decision.

Under ILO Convention 169, each affected ethnic community has the right to a separate consultation process. Despite this provision, Presidential Directive 10 indicates that public entities, notably the Directorate of Prior Consultation of the Ministry of Interior, which was created in 2019,[11] must seek to undertake a single, integrated prior consultation process on all aspects of the project (Presidency of the Republic, 2013, §10).

An alternative that has emerged to this is the elaboration of specific consultation protocols for the different Indigenous peoples. The Office of the United Nations High Commissioner for Human Rights has been working to support this alternative. From this process, several autonomous protocols have emerged, such as those of: the Arhuaco people of Sierra Nevada de Santa Marta; the Resguardo Nasa de Cerro Tijeras; and the Black People of the Cuencas de los Ríos Mayorquín, Raposo y Anchicayá (Mendoza, 2020[47]). The government, on its part, considers that this initiative would lead to an undesirable disaggregation of the processes and therefore is not in favour (Oxfam, 2018, p. 24[48]). It is said that differential treatment

would already be guaranteed by the pre-consultation state, in which the guidelines to be followed in the process are defined together with the affected ethnic communities (Oxfam, 2018, p. 24[48]).

In any case, in the past years, the government has been in discussions with Indigenous and Afro-Colombian leaders and representatives in order to consolidate regulation of the right to prior consultation in the country. In 2018, the Constitutional Court mandated that free, prior and informed consultation become a state policy (Constitutional Ruling 1232/2018). Up to the beginning of 2022, such a regulation has not been enacted. In parallel, a protocol is being designed for the implementation of the land registry policy in Indigenous territories (*Catastro Multipropósito*).

Moving forward on national regulation, there are a few points to be considered:

- Given the need to protect minorities' rights, the regulation should be enacted as a decree, instead of a law (*ley estatutaria*), as has been attempted so far. The non-approval of the national legislative power shows that matters of minority rights cannot await majority agreement. A solid participatory process would guarantee that different concerns are aired and multiple points of view are considered.
- The norm must contain the methodological route for consultation with ethnic communities, with basic procedures, stages, timeframes, formats and acceptable outcomes. If the regulation is too open, every new development project will require that a consultation process is designed from scratch, which could engender excessive delays and participation fatigue. At the same time, the protocol must have some flexibility, as to allow for culturally appropriate engagement.
- The government must respect the choice of ethnic communities to either adhere to the basic consultation protocol or present their own protocol.[12] Community-specific protocols may have been elaborated and approved in advance by *Cabildos* or *Consejos Comunitarios*. If they have not been elaborated, the government should grant them sufficient time to do so, given the complex nature of such deliberations. A time limit could be imposed, to prevent community-specific protocols being used as a tool to delay the public debate around development projects.
- Information sharing must be a pillar of the consultation process. The communities should have access to all of the materials and documents necessary to form their own understanding of the project and with enough time in advance.
- A full assessment of direct, indirect and cumulative impacts must be considered in the regulation.

The experience of the ILO (2008[46]) on the implementation of prior consultation protocols around the world brings important elements for further consideration:

> *"Mechanisms for consultation should, where possible, work through existing structures for purposes of longevity, sustainability and legitimacy;*
>
> *Adapt working methodologies to the structure and capacity of indigenous partner organisations and communities;*
>
> *Sustained capacity building required to operationalize consultation processes;*
>
> *Operational tools should be adaptable to local circumstances."*

In conclusion, the duty of prior consultation, which is a fundamental right of ethnic communities in Colombia, requires that governments treat consultation as a participatory process, beyond a procedural task. Clear protocols, information sharing, space for negotiation and sufficient time and resources to do so must be part of this process. The consultation process must be meaningful and respectful of ethnic and cultural diversity.

Sustainable land management practices for rural well-being

Land and natural resources can activate opportunities that promote rural well-being, considering the multiple dimensions of the economy, society and environment (OECD, 2016[49]). Good land use management helps to protect the environment, avoid land conflicts and promote legal economic activities. Rural areas in Colombia are rich in natural assets, which must be used as tools to foster development, not be depleted. For that reason, environmental preservation is a necessary condition for rural well-being. Fighting deforestation can help meet climate change goals, such as the objective to be carbon neutral by 2050, which was announced by the national government in 2021 (WRI, 2021[50]).

The main land use of the majority of Indigenous lands is forest conservation or agroforestry, which shows the great ecological importance of reserves (Arango, 2017[37]). A study calculated that without tenure security over Indigenous lands and forests, GHG emissions in Colombia would have been as much as 10-15% higher (Arango, 2017[37]). Only 3% of all land on Indigenous reserves is used for cattle raising and agriculture (Arango, 2017[37]). Some Indigenous communities develop mining activities (Pérez, Yepes and Gómez, 2021[32]).

The rural economy is highly focused on agriculture (Chapter 3). To benefit from opportunities in the green economy, the country needs to shift from this main focus to a more diverse array of sustainable activities such as agroforestry, climate-smart agriculture, bioeconomy and ecotourism. For this reason, access to land must be followed by policies that can support such sustainable economic activities.

Box 5.6. Areas of climate action for rural policies

According to the OECD Rural Agenda for Climate Action approved in 2021 by the OECD Working Party of Rural Policy, the following areas of action can support the transition to an environmentally sustainable, net-zero emission economy in rural regions:

1. Strengthen the evidence base by collecting and consolidating regional and local data assessing opportunities and challenges related to climate change. Develop indicators capable of informing policy making and facilitating communication. Foster partnerships of local and regional actors with national policy, making sure their views are considered.
2. “Just Transition”: Involve rural regions in the development and implementation of effective transition strategies. Sufficient enabling conditions to adapt and build resilience to climate change are necessary, i.e. knowledge, institutional capacity, good governance, data, digital infrastructure and funding. Facilitate the attraction of private investment for innovative climate solutions, where public funding is not sufficient.
3. Build on the competitive advantage of rural regions in producing renewable energy and establishing local innovation ecosystems. Assure that local communities benefit from meaningful co-ownership or benefit-sharing agreements with private investors.
4. Support the sustainable management of natural capital, sustainable land management practices and value creation from restoring, preserving and enhancing ecosystems for rural development. Establish integrated spatial and land use planning across functional territories to minimise urban sprawl and biodiversity loss and increase sustainable development patterns with high carbon sequestration and socio-economic development potentials, such as agroforestry, climate-smart agriculture, ecotourism and sustainable forestry.

   Critically the process requires: inclusion of local rural voices (e.g. traditional Indigenous knowledge); investment in nature-based solutions (e.g. flood and drought risk management);

and innovative market mechanisms such as certification and payment for ecosystem services (PES) schemes.

5. Support the shift to a circular economy and bioeconomy to minimise environmental pressures and promote resource efficiency to offer opportunities for new rural business models and create new markets. This includes exploring rural-urban linkages and supporting the engagement and buy-in of local communities in the process.
6. Decarbonising transport: Accelerate the transition to sustainable and innovative mobility options whilst connecting the required physical and digital infrastructure (e.g. renewable energy generation, green hydrogen production and fast Internet connection).

Source: OECD (2021[51]), *OECD Rural Agenda for Climate Action*, https://www.oecd.org/regional/rural-development/Rural-Agenda-for-Climate-Action.pdf.

The Sustainability Pact, established in the National Development Plan (PND) 2018-2022, considers the sustainability agenda as transversal to development. The pact has four lines of action: sustainability and climate change mitigation; biodiversity and natural wealth; disaster risk management and prevention; and modern environmental institutions, social appropriation of biodiversity and management of socio-environmental conflicts.

The Sustainability Pact consolidates the evolution of public environmental policy over the last 15 years, which includes, among others, the Green Growth Policy and policies, strategies and plans on circular economy, air, water resources, seas and coasts, soil, biodiversity, climate change, disaster risk management, green business and environmental education (DNP, 2019[17]).

Regarding the agricultural sector, in 2021, the government enacted the Comprehensive Climate Change Management Plan (*PIGCC Agropecuario*). The objective of the agricultural PIGCC is to identify, articulate and guide the implementation of measures to mitigate the generation of GHGs and reduce the vulnerability of this sector to climate change. Some of the measures of the PIGCC are listed as follows:

- Generate information related to climate change and risk management useful for decision-making in the agricultural sector at the national, regional, departmental, and municipal levels.
- Adopt practices to increase carbon capture and storage and reduce land degradation.
- Increase the biological diversity of agricultural production systems to reduce GHG emissions, reduce their vulnerability to climate change and improve preparedness against disaster risk.
- Structure financial, market and agricultural risk transfer instruments taking into account equitable access for women and men.

As this recent example demonstrates, there are several plans and policies in place that can support sustainable economic diversification, with the goal of balancing preservation and productivity, while keeping in mind climate change mitigation efforts and resiliency against climate-related shocks and disasters. The task ahead is to translate these plans and policies into practice, which requires integrated implementation efforts and sufficient funding. This is what will be discussed in the following sections.

Delimitation of the agricultural frontier

In the Sustainability Pact of PND 2018-2022, defining, closing and consolidating the agricultural frontier appears as one of the main strategies to fight deforestation. It is also one of the pillars of the peace agreement IRR. The agricultural frontier is the rural land boundary that separates rural areas used for farming, livestock raising and fishing, from protected areas, where such productive activities are prohibited by law (Resolution 261/2018- MADR) (ICG, 2021[6]). It is a key concept that connects land security, productivity and environmental preservation.

Besides fighting deforestation, the delimitation of the agricultural frontier can help to address rural land use conflicts. According to UPRA (2018[52]), the most common rural land use conflicts are related to livestock and agricultural activities, which exert pressure on strategic ecosystems and type A forest reserve areas of Law 2 of 1959. Many of these activities are conducted in areas that are not suitable for cultivation or that should be protected. Data from the government shows that 21% of rice farms are located in areas that are not suited for cultivation, while 19% of milk production units are located outside of the agricultural frontier (DNP, 2022[25]).

The government had made the compromise to delimit the agricultural frontier in the peace agreement, which was achieved in 2018. By so doing, the government intends to increase productivity in the areas within the frontier and secure the preservation of areas outside it. It consists of an area of 39.6 million ha, representing 34.7% of the national territory, in which agricultural activities can be carried out sustainably without restrictions (UPRA, 2021[53]). The use is conditioned in about 37% of the total area of the agricultural frontier, due to environmental and ethnocultural considerations (UPRA, 2021[53]).

Importantly, the Environmental Zoning Plan, another compromise that derives from the peace agreement, will indicate buffer zones of the agricultural frontier, with the objective of enclosing its limits. It consists of an indicative planning instrument with macro-zones of different levels of environmental protection in the 170 municipalities and 16 PDET sub-regions. Another objective of the Environmental Zoning Plan is to guide environmentally sustainable land use alternatives for the communities living in the buffer zones. The plan was approved in December 2021 (Resolution 1608/2021, Ministry of Environment and Sustainable Development) and, currently, its action plan for implementation is in the process of elaboration.[13]

The task ahead is to ensure the agricultural frontier is followed and respected. Indeed, several planning instruments will have to take into consideration their limits. For instance, ZRCs consist of areas dedicated to small- and medium-scale farming that should mainly fall within the agricultural frontier, stabilising it. The National Environmental Restoration Strategy (*Estrategia Nacional de Restauración*) will prioritise protected areas that are strategic to the closing of the agricultural frontier. It will articulate nature restoration efforts with sustainable activities in the green economy and PES, in what is called “productive restoration”.

The fight against deforestation

Colombia has signed the 2021 Glasgow Leaders’ Declaration on Forests and Land Use, which is committed to ending forest loss and land degradation by 2030 (Forest Declaration Platform, 2022[54]). The Sustainability Pact has the objective to implement multi-sectoral initiatives to control deforestation, preserve ecosystems and prevent their degradation. The strategies delineated to meet this objective include data systematisation, law enforcement efforts, environmental strategic evaluations, nature recuperation plans and zero deforestation agreements to be signed with agricultural producers, among others.

In 2020, Colombia approved the National Policy for Deforestation Control and Sustainable Management of Forests (CONPES Document 4021). The main objective of this policy is to implement cross-sectoral strategies to control deforestation and promote forest management in a sustainable manner, by fostering community development and the green economy, especially in areas of high deforestation. The strategic axes are the development of sustainable productive alternatives, cross-sectoral management, legality and territorial control and monitoring and follow-up.

In 2021, the Environmental Crimes Law was enacted. It created new environmental crimes such as conducting or financing deforestation, conducting or financing illegal appropriation of untitled public lands (*baldíos*), ecocide and wildlife trafficking. The law established specific aggravating circumstances for some crimes, making the penalties more severe. To support prosecution and investigation, a Specialized Directorate for Crimes against Natural Resources and the Environment was created.

Moreover, as anticipated in the Sustainability Pact, the government created the National Council to Fight Environmental Crimes and Deforestation (*Consejo Nacional de Lucha Contra la Deforestación*, Conaldef). The council has the role to propose policies, programmes and plans to fight deforestation, as well as to co-ordinate institutional actions in this direction (KPMG, 2020, p. 65[55]). The council is also responsible for liaising with foreign governments to obtain international assistance.

The government is prioritising the fight against deforestation in the 16 sub-regions and 170 municipalities of the PDET. These areas concentrated 84% of all deforestation that took place in the country in 2017 and 25% of them experience land use disputes (DNP, 2019[56]). In 2021, the government carried out 68 police operations and 228 captures associated with deforestation, mining and crimes against natural resources, which represented an increase of 30% compared to 2020 (MADS, 2021[57]). Besides fighting deforestation, these initiatives also included restoration efforts. To illustrate, in the Artemisa military operation, which extended for 13 phases, 22 628 ha of degraded forest were recovered (MADS, 2021[57]).

In addition, there have been ongoing efforts to restore mining sites and promote the adequate recovery of degraded natural ecosystems. It is worth mentioning as an example the restoration project at Istmina (Chocó), which intervenes in 372 ha affected by mining. Following a judicial order from the Constitutional Court (T-622/2016), which granted legal personhood rights to the Atrato River, the government is investing in reforestation, environmental education and community participation strategies: 517 583 native trees will be planted (Codechocó, 2022[58]).

To improve information systems and data collection, the government has been investing in technology and human resources, as the example of the Forest and Carbon Monitoring System of the Institute of Hydrology, Meteorology and Environmental Studies (Ideam) shows. Moreover, under the policy of Catastro *Multipropósito*, priority will be given to registering untitled public lands located in areas of high deforestation.

Funding is another key element to support the control of deforestation. For that, the government has relied mostly on international co-operation. The Heritage Colombia programme, created in 2017, with support from the World Wildlife Fund (WWF), the Wildlife Conservation Society and other international actors, consists of a permanent fund to protect national parks and increase the amount of land in the conservation system (WWF, 2017[59]).

While funding can protect national parks, there are few resources available to relieve the pressure on buffer zones near these protected areas (Instiglio, 2021[60]). It is in the buffer zones that unsustainable practices such as deforestation and illegal mining often occur. Noting this gap, the government and international partners are building a strategy to mobilise private capital into innovative and impact-driven businesses located in the buffer areas, as to support practices of nature conservation and sustainable management of land (Instiglio, 2021[60]). Currently, the government is assessing financial instruments for biodiversity protection and working on the design of a compensation mechanism for low-income municipalities that will help to consolidate protected areas, as per Action 4.15 of CONPES Document 4050.

Payment for ecosystem services (PES): Opportunity in nature conservation

The Sustainability Pact recognises that promoting nature conservation and environmental restoration are strategic to reduce deforestation, alongside efforts to promote land distribution and formalisation and to prevent land use conflicts. To that effect, the main strategies advanced in the pact consist of creating fiscal incentives and compensation mechanisms to support conservation strategies and strengthening the national programme of PES (DNP, 2019, p. 482[17]).

PES are a growing opportunity in the context of policy responses to climate change and environmental degradation. Ecosystem services can be grouped into four categories: provisioning services (products such as food and fresh water); regulating services (benefits from the regulation of the ecosystem such as air quality and pollination); cultural services (non-material benefits such as recreation and aesthetic

experiences); and supporting services (e.g. photosynthesis and nutrient recycling) (UNDP, 2019[61]). The basic principle is that people benefit from natural ecosystems and therefore must contribute to their conservation. Funding can come from users or beneficiaries, such as individuals and non-governmental organisations (NGOs), or from the government, as part of a wider conservation policy.

In Colombia, a national law of PES was enacted in 2017 (Law 870), years after the first PES programmes had been implemented by private actors and government authorities. The law presents requirements for the design and implementation of publicly-funded PES programmes but does not institute a national program. CONPES Document 3886 also helps to establish the guidelines for PES programmes and related actions.

According to the law, publicly-funded PES programmes must target conflict-ridden municipalities or areas where illicit crops are grown (Article 8 of Law 870 of 2017). Government payments must range between USD 106 and USD 159 per hectare per year for forest conservation, and USD 53 and USD 105 per hectare per year for forest restoration. This payment range has been considered low, suggesting that PES schemes will not suffice to support landowners and occupants in dedicating fully to conservation-related activities (Cañón, 2019, p. 64[62]).

Yet another PES programme was created in 2021. Through Nature Conservation Contracts, peasants living on public land can generate income by committing to the preservation or recuperation of forests. The programme focuses on buffer areas of national parks and protected forest areas. Beneficiaries are families living within the protected areas and those under the National Programme of Crop Substitution (*Programa Nacional Integral de Sustitución de Cultivos Ilícitos*, PNIS) or that want to discontinue illegal cultivations.

The process of granting a Nature Conservation Contract has several stages, including a technical site visit from the ANT and consultation with MADS in what regards the limits of the agricultural frontier. In 2021, the ANT conducted over 2 000 technical visits and transferred another 549 processes to MADS (OECD Questionnaire, 2021).

After the administrative process, two different agreements must be signed, with two different public authorities (OECD Questionnaire, 2021).

- First, the ANT must grant a Use Rights Contract, which allows the beneficiary to continue living on the public land for the next 10 years. The conditions of use for each property subject to Use Rights Contract vary, depending on the level of exploitation and the potential uses allowed in the Municipal Land Management Plans, if applicable, or the uses permitted in forest reserve zones.
- Second, the Ministry of Environment and Sustainable Development must sign a Voluntary Conservation Agreement, opening up the possibility to access payment for forest conservation and recuperation.

The government had promised that 5 495 contracts would be granted in 2021 and more 4 101 in 2022. According to data from October 2021, only 131 contracts had been concluded and registered (OECD Questionnaire, 2021). This number is considerably lower than the amount promised, which suggests that implementation is lagging. Moreover, co-ordination efforts might be slowing down the programme. Since both the ANT and the Ministry of Environment and Sustainable Development must sign two different agreements with beneficiaries, if this process is not well co-ordinated, the efficiency of the programme might be hampered.

The country already has more than 15 different PES programmes (Cañón, 2019, p. 63[62]). Most of them were created before the 2017 law and have not yet adapted to the new provisions. According to the National Planning Department, only 65 000 ha of land in the whole country are used for PES programmes (DNP, 2019, p. 482[17]). The goal is to have at least 1 000 000 ha enrolled in PES programmes by 2030, which would represent 0.87% of the country's area (Cañón, 2019, p. 64[62]).

For that to happen, the different PES programmes must be harmonised with the national framework. Furthermore, it is necessary to accelerate the implementation of Nature Conservation Contracts if the government goals are to be met. Co-ordination efforts and inaccurate land registries seem to be challenges for implementation. It has been noticed that while the flexibility of having several programmes can translate into well-targeted programmes, the lack of a single framework can hamper efforts to compare programmes and measure their effectiveness (Cañón, 2019, p. 63[62]). For that reason, monitoring and evaluation measures must be put in place.

Ethnic communities as nature stewards and economic actors

Opportunities in environmental stewardship

Indigenous peoples and Afro-Colombian populations have an important yet often neglected role as nature's stewards, contributing to environmental preservation and biodiversity. In Colombia, as much as 99% of Indigenous lands absorb more carbon than they emit, and they do so at a rate that is more than twice the one of non-Indigenous lands (Forest Declaration Platform, 2022[54]).

The government must recognise and actively support this role. First and foremost, this must be done by securing land rights, promoting tenure security and respecting prior consultation protocols. Furthermore, Indigenous and ethnic groups must have meaningful opportunities to actively engage in climate change mitigation efforts (Forest Declaration Platform, 2022[54]). To that effect, there must be continuous support for the creation of income-generating opportunities in natural resource stewardship for Indigenous and Afro-Colombian groups and individuals.

The National System of Natural Parks includes 59 protected areas and 3 National Districts of Integrated Management. Out of this total, 29 areas overlap with Indigenous reserves and 11 with Afro-Colombian territories or uses. This means that 71% of the 62 protected areas in Colombia are linked to ethnic groups (PNNC, 2021, p. 91[63]). Given these dynamics, the government has designed instruments to include these communities in the conservation of protected areas, recouping the benefits of such practices.

Notably, some areas have Joint Management Plans (*Planes de Manejo Conjunto*), which are elaborated together with Indigenous or Afro-Colombian communities. There is also a programme of *Contracts* of Community Ecotourism (*Contratos de Ecoturismo Comunitario*) that can generate important economic opportunities for ethnic communities (see the section below).

Joint Management Plans can serve to integrate Indigenous perspectives into conservation practices. The majority of the existing plans do not culminate with shared authority over environmental matters but refer to the participatory design of nature conservation policies. Nonetheless, greater involvement of ethnic communities in this matter is an area with recent progress, as shown in the case of the Sanquianga National Park (Box 5.7). Moreover, the national parks authority of Colombia (PNNC) has signed several protocols of prior consultation with Indigenous or Afro-Colombian communities. These protocols can effectively delineate the steps of the participatory process of the elaboration of management plans (PNNC, 2021[63]).

Box 5.7. Sanquianga National Park

Sanquianga National Park is an exceptional case in the relationship between the national parks authority (PNNC) and the Black communities of the Colombian Pacific. This protected area is inhabited by more than 6 000 people, who have historically occupied this territory. In 1977, when the park was created, the communities that already inhabited the area were not consulted or informed about the constitution of the national park.

The communities never realised their territorial aspirations, since the normative framework of that time did not recognise the rights of the ethnic communities over these territories. Later on, their occupation was considered incompatible with the existence of the natural park (Article 6 of Law 70/1993).

From this point onwards, a process of relationship building began. A co-ordination body called Mixed Team (*Equipo Mixto*) was formed, composed of representatives of each of the six community councils within the park and the protected area team. This body constitutes a space for joint construction and concerted decision-making. As a result of the joint work, 12 agreements of use and management of natural resources have been signed. These agreements were last updated in 2016, as part of the process of joint elaboration of the management plan, which had begun in 2014 and was concluded in 2018.

Currently, the Mixed Team is one of the strengths of Sanquianga's park management. It has led to the emergence of new leadership, the return of some leaders, joint monitoring activities and the consolidation of the relationship between the *Parques Nacionales Naturales de Colombia* (PNNC), as an expression of shared environmental governance.

Source: Adapted from PNNC (2021[63]), *Informe de Gestión – Vigencia 2020*, https://www.parquesnacionales.gov.co/portal/wp-content/uploads/2013/08/informe-de-gestion-2020.pdf.

A direction for further progress could be the self-management or joint management of conservation areas, whereby ethnic communities participate not only in the elaboration of Management Plans but also have powers to conduct everyday management and regulatory activities. That is, they are directly concerned with the implementation of plans. The current legal framework of special Indigenous jurisdictions seems to be supportive of this type of arrangement (Article 246 of the Constitution). Under this logic, Indigenous authorities could have the power to monitor environmental behaviour and impose fines.

In conclusion, the state should make continuous investments in strengthening the inclusion and leadership of Indigenous peoples in conservation and natural resource management. The scope of management of natural parks can be enlarged to involve Indigenous peoples directly in these activities. Box 5.8 provides relevant examples from countries where Indigenous peoples have decision-making and regulatory powers in the execution of policies for the protection and sustainable use of water, land, forests and fisheries.

Box 5.8. Joint management of conservation areas

Joint management involves Indigenous communities and public governments formally sharing the regulatory powers over the environment and natural resources. The most common instruments are agreements, memoranda of understanding and dedicated institutions, such as boards of governance or councils. These instruments can encompass a whole nature conservation area or refer to specific resources, e.g. a river basin.

In Australia, Gurig National Park became the first jointly managed national park in 1981 and since then further co-management arrangements have been adopted in other national parks.

In Canada, one example of a joint institutions are the resource co-management boards of the Mackenzie Valley, Northwest Territories, as part of the Gwich'in, Sahtu and Tlicho comprehensive land claim agreements. The boards, composed of Indigenous representatives and government authorities, issue and manage land use permits and water licenses and conduct environmental assessments of large projects in the Mackenzie Valley.

In Sweden, the Laponia World Heritage site has a shared management model between the government and the Sámi Indigenous people. Sámi representatives hold the majority on the board of directors of the organisation and the management structure has been adapted to traditional Sámi organisational practices and knowledge. Another example is the county of Finnmark in Norway, where the management of land and natural resources is overseen by a board of directors with 50% of Indigenous representation. Responsibilities include overseeing property development, hunting licenses and outdoor recreation, so as to enhance Sámi culture, reindeer husbandry, commercial activity and social life.

Source: Adapted from OECD (2019[29]), *Linking Indigenous Communities with Regional Development*, https://doi.org/10.1787/3203C082-en.

Mobilising the potential of environmental conservation together with ethnic communities

The starting point for realising growth opportunities is place-based economic development strategies that enable ethnic communities to identify areas of competitive advantage and co-ordinate actions to realise their potential (OECD, 2019, p. 137[29]). Ethnic groups have cultural assets and traditional land management practices that place them in a unique position to contribute to a more inclusive and sustainable pattern of regional development. For that to become effective, the uniqueness of local contexts and the particular challenges faced by remote populations must be taken into account.

In what relates to land, two broad areas can be considered for place-based economic development. One is related to the national system of protected areas, in the form of services of biology research, environmental stewardship, monitoring of environmental infractions or crimes and promotion of ecotourism. This is an important area of opportunity, since 71% of the natural parks in the country overlap or contains ethnic territories (PNNC, 2021[63]). The other one is related to natural resource extraction, such as fishing, timber and mining. These activities can be compatible with ethnic territories, if respectful of the environment and local cultural practices. Furthermore, they have to be undertaken by ethnic communities sustainably or, if carried out by third parties, communities must be consulted and benefit-sharing agreements must be put in place (OECD, 2019[29]). The illegal extraction of natural resources must be vigorously countered.

To give consideration to the case of mining, the government can constitute exploitation zones in Indigenous or Afro-Colombian territories. The so-called Indigenous Mining Zones or Afro-Colombian Mining Zones are areas where mining activities can be authorised. If a third party requests to exploit sub-surface resources, the ethnic communities are given the right of preference to do so (Pérez, Yepes and Gómez, 2021[32]). If they opt not to exercise this right, then the authorisation to exploit can be given to the interested third party. In this case, the royalties generated from the activity should be directed to the execution of works and services that directly benefit the ethnic communities settled in the area (Decree 710 of 1990).

According to the constitution, the exploitation of natural resources in ethnic territories shall be carried out without detriment to their cultural, social and economic integrity (Article 330). Anytime that exploitation is to be authorised or that legislative measures that directly affect the ethnic groups are being envisaged, a process of prior consultation must be in place (Law 21 of 1991). The Constitutional Court has ruled that the prior consultation process must ensure that the community has full knowledge of the projects intended to exploit natural resources in their territory and is able to evaluate freely and without interference the benefits and disadvantages of the projects (Ruling 39/1997). Furthermore, the community must have active and effective participation in the decision taken by the public authority, which, as far as possible, should be agreed upon or concerted.

As of 2017, there were 25 Indigenous Mining Zones and 43 Afro-Colombian Mining Zones in the country (Pérez, Yepes and Gómez, 2021[32]). In these zones, there are titles granted to Indigenous and Afro-Colombian communities. Data from 2014 indicates that 577 titles have been granted to Indigenous

communities, which confirms the existence of mining activities carried out by ethnic groups (Pérez, Yepes and Gómez, 2021[32]). As for Afro-Colombian communities, they hold 196 titles. At the same time, hundreds of mining titles overlap with the boundaries of Indigenous and Afro-Colombian territories, irrespectively of being located in mining zones (Pérez, Yepes and Gómez, 2021[32]). This shows that either the right of preference is not adequately respected or that mining activities are authorised without the protocol of prior consultation.

Concerning opportunities associated with protected areas, the Community Ecotourism Contracts programme is a good example. This programme has a lot of potential to generate economic development and promote a more equal distribution of the benefits of conservation. Since 2008, the government has signed contracts with community organisations in 9 different protected areas, from which a total of 80 families have benefitted (PNNC, 2020[64]). The community organisations lead ecotourism activities inside the protected areas, which has generated revenues and helped to disseminate ecological practices and values. Challenges identified for the future include the formalisation and capacitation of tourism guides from ethnic communities, the generation of viable business models for community organisations and more frequent exchanges of knowledge and best practices among community organisations (PNNC, 2020[64]).

Other areas of opportunity around protected areas are hiring Indigenous and Afro-Colombian individuals or families as conservation agents under PES programmes or as park rangers, managers of natural reserves and researchers (Box 5.9). These policies can successfully translate into economic opportunities for ethnic communities that are aligned with their cultural values and vocation as nature's stewards.

Box 5.9. Indigenous park rangers in Australia

The Australian government's Indigenous Protected Areas (IPA) programme enables land and sea country to be managed according to the wishes of the Traditional Owners. IPAs are voluntary arrangements through which Indigenous communities dedicate their lands or sea country to be set aside formally for conservation purposes. These areas are then recognised by the Australian government as part of the National Reserve System. There are currently 75 dedicated IPAs which contribute over 65 million ha, or more than 44%, of the National Reserve System. These IPAs deliver important Indigenous land management, cultural, social and economic and employment outcomes.

These outcomes are shared and in many cases strengthened by the government's funding for Indigenous rangers. The Indigenous ranger funding supports 118 ranger groups across Australia and, together with IPAs, the 2 programmes employ over 2 900 Indigenous Australians to work on land and sea country. Ranger groups protect, conserve and manage environmental and cultural values. Projects can include but are not limited to activities such as the management of threatened species, invasive weeds and feral animal control, biosecurity activities, fire management, management of coastal and marine systems, visitor and information management, community engagement and education.

Source: OECD (2019[29]), *Linking Indigenous Communities with Regional Development*, https://doi.org/10.1787/3203C082-en.

Final considerations

Land lies at the core of rural development in Colombia. Through delimitation of the agricultural frontier and conservation efforts, protected areas can meet their environmental purposes and economic activities can take place in suitable areas. By recognising and protecting Indigenous, Roma and Afro-Colombian territories, ethnic and cultural diversity is promoted and these ethnic communities can exercise fiscal management and administrative powers. Small farmers and peasants too need land to develop sustainable

agricultural practices, as recognised and continuously addressed in the land restitution process. Mapping, identifying and allocating land in a transparent and committed manner can greatly contribute to fulfilling these objectives.

Besides land registry and distribution, the management of land and natural resources is fundamental to further promoting well-being and peace in the countryside. Land use and development plans contribute to a more adequate and rational use of land. This in turn can reduce the pressure over land and the consequent land-enlarging requests, therefore also diminishing the intensity of socio-territorial conflicts. Consistent environmental monitoring efforts can help to fight illegal extractive purposes that detract land from its intended purposes. The protection of environmental and human rights leaders must also figure high in the list of action priorities.

The message for Colombia moving forward is that there can be sufficient land for everyone. For that, the planned uses must be observed, illegal activities must be combatted, and multiculturality and ethnic diversity must be promoted. Under a participatory process of regional development, ethnic communities can exercise their right of prior consultation in regard to development projects that directly affect them. Rural areas in Colombia have the potential to become areas where environmental conservation, agricultural production, ethnic autonomy and opportunities for sustainable economic development coexist and flourish.

References

ANT (2022), *Datos Abiertos, Resguardos Indigenas*, National Land Agency, https://data-agenciadetierras.opendata.arcgis.com/maps/f84afb113d3b4512be65305fd09aa7ee. [33]

Arango, J. (2017), *La tenencia de tierras colectivas en Colombia: Datos y tendencias*, Center for International Forestry Research (CIFOR), https://doi.org/10.17528/cifor/006704. [37]

Ariza, F. (2022), “Distribución de la propiedad rural en Colombia en el siglo XXI”, *Revista de Economia e Sociologia Rural*, Vol. 60/4, https://doi.org/10.1590/1806-9479.2021.242402. [4]

Ariza, F. (2022), “Distribución de la propiedad rural en Colombia en el siglo XXI”, *Revista de Economia e Sociologia Rural*, Vol. 60/4, https://doi.org/10.1590/1806-9479.2021.242402. [10]

Ariza, F. (2021), “Distribution of rural property in Colombia during the XXI Century”, *Revista de Economia e Sociologia Rural*, Vol. 60/4, pp. 1-18, https://doi.org/10.1590/1806-9479.2021.242402. [7]

Berry, R. (2017), “Reflections on injustice, inequality and land conflict in Colombia”, *Canadian Journal of Latin American and Caribbean Studies / Revue canadienne des études latino-américaines et caraïbes*, Vol. 42/3, pp. 277-297, https://doi.org/10.1080/08263663.2017.1378400. [1]

Cañón, L. (2019), “Payments for ecosystem services in Colombia: Discourses, design and motivation crowding”, PhD Dissertation, Universidad Autònoma de Barcelona. [62]

Codechocó (2022), “Con participación comunitaria restauraremos 325 hectáreas afectadas por minería en el Municipio de Río Quito”, https://codechoco.gov.co/publicaciones/3376/con-participacion-comunitaria-restauraremos-325-hectareas-afectadas-por-mineria-en-el-municipio-de-rio-quito/. [58]

Colombia (2016), *Final Agreement to End the Armed Conflict and Build a Stable and Lasting Peace. November 24, 2016*. [18]

Crown-Indigenous Relations and Northern Affairs Canada (2021), *Grants to reimburse treaty negotiation loans to indigenous groups who have settled a comprehensive land claim*, https://www.rcaanc-cirnac.gc.ca/eng/1604958267840/1604958306918. [43]

Crown-Indigenous Relations and Northern Affairs Canada (2015), *Comprehensive Claims*, https://www.rcaanc-cirnac.gc.ca/eng/1100100030577/1551196153650 (accesed on November 2022). [45]

DANE (2019), *Resultados del Censo Nacional de Población y Vivienda: Comunidades Negras, Afrocolombianas, Raizales y Palenqueras*, Departamento Administrativo Nacional de Estadística, https://www.dane.gov.co/files/investigaciones/boletines/grupos-etnicos/informe-resultados-comunidades-narp-cnpv2018.pdf. [30]

DNP (2022), *Transformación Rural Integral: Política para Impulsar la Competitividad Agropecuaria*, Unpublished, Documento CONPES, Departamento Nacional de Planeación. [25]

DNP (2020), *Distribución de los recursos del sistema general de participaciones. Bogotá (Colombia)*, Departamento Nacional de Planeación, https://colaboracion.dnp.gov.co/CDT/Inversiones%20y%20finanzas%20pblicas/Documentos%20GFT/Distribuciones%20SGP/DD%20SG P-48-2020.pdf. [35]

DNP (2019), *Documento de Bases del Plan Nacional de Desarrollo 2018-2022*, Departamento Nacional de Planeación. [17]

DNP (2019), *Documento de Bases del Plan Nacional de Desarrollo 2018-2022*. [56]

Duarte, C. and A. Castaño (2020), "Territorio y derechos de propiedad colectivos para comunidades rurales en Colombia", *Maguaré*, Vol. 34/1, pp. 111-147. [21]

Forest Declaration Platform (2022), "Sink or swim: How Indigenous and community lands can make or break nationally determined contributions", Briefing paper, https://forestdeclaration.org/wp-content/uploads/2022/03/Sink-or-swim-IPLC-lands-and-NDCs.pdf. [54]

Gilbert,, J. (2016), "Land Rights as Proprietary Rights", in *Indigenous Peoples' Land Rights under International Law*, Brill | Nijhoff, https://doi.org/10.1163/9789004323254_005. [38]

González, L. et al. (2021), "Who owns what in Macondo? The flexibilization of the rules of evidence in land restitution in Colombia", *International Journal of Transitional Justice*, Vol. 15, pp. 26-46, https://doi.org/10.1093/ijtj/ijaa029. [22]

Humboldt Institute (2017), *Zonas de Reserva Campesina en el escenario del posconflicto*, http://reporte.humboldt.org.co/biodiversidad/2017/cap4/404/#seccion1. [24]

ICG (2021), *A Broken Canopy: Deforestation and Conflict in Colombia*, International Report No. 91, International Crisis Group. [6]

ICG (2020), *Leaders under Fire: Defending Colombia's Front Line of Peace*, International Report No. 82, International Crisis Group. [39]

IISD (2021), “Escazu Agreement takes effect, enshrining right to sustainable development”, International Institute for Sustainable Development, https://sdg.iisd.org/news/escazu-agreement-takes-effect-enshrining-right-to-sustainable-development/#:~:text=The%20Escazu%20Agreement%20entered%20into,environment%20and%20to%20sustainable%20development. [41]

ILO (2008), “Indigenous peoples: Consultation and participation”, Presentation, International Labour Organization, http://ilo.org/asia/info/WCMS_099187/lang--en/index.htm. [46]

ILSA (2015), *Adjudicación de predios baldíos: Mecanismo para el acceso a la tierra. Bogotá: July 2015*, Instituto Latinoamericano para una Sociedad y un Derecho Alternativos, https://ntp.devmds.com/wp-content/uploads/archivos/caja-herramientas/adjudicacion-de-predios-baldios.pdf. [11]

Instiglio (2021), *Assessing the Viability and Value-add of an Environmental Fund in Colombia*, https://www.instiglio.org/impact/assessing-the-viability-and-value-add-of-an-environmental-fund-in-colombia/. [60]

Karl, R. (2017), “Century of the exile: Colombia’s displacement and land restitution in historical perspective, 1940s-1960s”, *Canadian Journal of Latin American and Caribbean Studies / Revue canadienne des études latino-américaines et caraïbes*, Vol. 42/3, pp. 298-319, https://doi.org/10.1080/08263663.2017.1317951. [2]

KPMG (2020), *Análisis político y económico de la deforestación en regiones afectadas por en conflicto en Colombia: caso de Caquetá, Meta y Guaviare*, https://assets.kpmg/content/dam/kpmg/co/pdf/2020/08/kpmg-co-analisis-politico-y-economico-en-regiones-afectadas-por-el-conflicto-en-colombia.pdf. [55]

Kroc Institute for International Peace Studies (2021), *Five Years of Peace Agreement Implementation in Colombia: Achievements, Challenges and Opportunities to Increase Implementation Levels, December 2016 - October 2021*, Peace Accords Matrix/Kroc Institute for International Peace Studies/Keough School of Global Affairs, Notre Dame, IN and Bogotá, Colombia, https://doi.org/10.7274/0c483j36025. [13]

MADS (2021), “Gobierno Nacional no baja la guardia en lucha contra la deforestación”, Ministerio de Ambiente y Desarrollo Sostenible, https://www.minambiente.gov.co/comunicado-de-prensa/gobierno-nacional-no-baja-la-guardia-en-lucha-contra-la-deforestacion/. [57]

MADS (2018), *Documento técnico orientador para la formulación e implementación del plan de zonificación ambiental participativa*, Ministerio de Ambiente y Desarrollo Sostenible, https://acmineria.com.co/acm/wp-content/uploads/normativas/plan_de_zonificacion_ambiental_-_30_07_2018.pdf. [66]

McKay, B. (2018), “Democratising land control: Towards rights, reform and restitution in post-conflict Colombia”, *Canadian Journal of Development Studies*, Vol. 39/2, pp. 163-181, https://doi.org/10.1080/02255189.2017.1364621. [5]

Medina, J. and M. Cárdenas (2020), “La paradoja de la protección a las comunidades étnicas como deber estatal en torno al acceso a las tierras como recurso escaso en el caso colombiano: algunas reflexiones y propuestas desde la misionalidad de la Agencia Nacional de Tierras”, in Pachón, M. (ed.), *Lecturas sobre Derecho de Tierras – Tomo IV*, Universidad Externado de Colombia, Bogotá. [31]

Mendoza, D. (2020), “The force of the self-determination of Indigenous peoples in Colombia”, Debates Indígenas. [47]

National Congress (2021), *¿En qué va la paz 5 años después de la firma del Acuerdo Final?*. [14]

Nilsson, M. and L. Taylor (2016), “Applying the security-development nexus on the ground: Land restitution in Colombia”, *Conflict, Security and Development*, Vol. 17/1, pp. 73-89, https://doi.org/10.1080/14678802.2016.1231844. [3]

OECD (2021), “Colombia”, in *Agricultural Policy Monitoring and Evaluation 2021: Addressing the Challenges Facing Food Systems*, OECD Publishing, Paris, https://doi.org/10.1787/34561bf9-en. [16]

OECD (2021), *OECD Rural Agenda for Climate Action*, OECD, Paris, https://www.oecd.org/regional/rural-development/Rural-Agenda-for-Climate-Action.pdf. [51]

OECD (2020), *Linking Indigenous Communities with Regional Development in Canada*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/fa0f60c6-en. [44]

OECD (2019), *Asymmetric Decentralisation: Policy Implications in Colombia*, OECD Multi-Level Governance Studies, OECD, Paris. [36]

OECD (2019), *Linking Indigenous Communities with Regional Development*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/3203C082-en. [29]

OECD (2019), *OECD Public Governance Scan: Colombia*, OECD, Paris. [28]

OECD (2019), *OECD Regional Outlook 2019: Leveraging Megatrends for Cities and Rural Areas*, OECD Publishing, Paris, https://doi.org/10.1787/9789264312838-en. [26]

OECD (2017), *The Governance of Land Use in OECD Countries: Policy Analysis and Recommendations*, OECD Regional Development Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264268609-en. [27]

OECD (2016), “Rural Policy 3.0”, in *OECD Regional Outlook 2016: Productive Regions for Inclusive Societies*, OECD Publishing, Paris, https://doi.org/10.1787/9789264260245-7-en. [49]

OECD (2015), *OECD Review of Agricultural Policies: Colombia 2015*, OECD Review of Agricultural Policies, OECD Publishing, Paris, https://doi.org/10.1787/9789264227644-en. [8]

OECD (2012), *Mejores prácticas registrales y catastrales en México (Best Practices in Public Registries and Cadastres in Mexico)*, OECD, Paris. [19]

OECD/ECLAC (2014), *OECD Environmental Performance Reviews: Colombia 2014*, OECD Environmental Performance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264208292-en. [15]

Oxfam (2018), *Implementación de la consulta y consentimiento previo, libre e informado: Experiencias comparadas en América Latina y discusiones sobre una ley de consulta en México*, Oxfam, Mexico City. [48]

Pérez, C., C. Yepes and L. Gómez (2021), “Minería y comunidades étnicas en Colombia”, *Advocatus*, Vol. 36, pp. 77-108. [32]

PGN (2021), *Informe sobre el estado de avance de la implementación de las estrategias de acceso a tierras y uso del suelo rural contempladas en el Acuerdo de Paz*, Procuradoria General de la Nación, Bogotá, https://www.procuraduria.gov.co/portal/media/file/Informe%20sobre%20Acceso%20y%20Uso%20de%20la%20Tierra%20Def%2007_01_2021.pdf. [20]

PNNC (2021), *Informe de Gestión – Vigencia 2020*, Parques Nacionales Naturales de Colombia, https://www.parquesnacionales.gov.co/portal/wp-content/uploads/2013/08/informe-de-gestion-2020.pdf. [63]

PNNC (2020), *Lineamientos de ecoturismo comunitario para Parques Nacionales Naturales de Colombia y sus zonas de influencia*, Parques Nacionales Naturales de Colombia, https://www.parquesnacionales.gov.co/portal/wp-content/uploads/2014/05/lineamientos-de-ecoturismo-comunitario-para-parques-nacionales-naturales-de-colombia-y-sus-zonas-de-influencia.pdf. [64]

Restrepo, E. (2005), "Políticas de la teoría y dilemas de los estudios de las colombias negras", Universidad del Cauca, Popayán. [65]

RIMISP (2020), *Reflexiones sobre Ordenamiento y Desarrollo Territorial en Colombia*, Centro Latinoamericano para el Desarrollo Rural, Nuevas Ediciones S.A.S., Bogotá. [23]

Semper, F. (2006), "Los derechos de los pueblos indígenas de Colombia en la jurisprudencia de la Corte Constitucional", in *Anuario de Derecho Constitucional Latinoamericano*. [34]

UNDP (2019), *Financing Solutions for Sustainable Development Payments for Ecosystem Services*, United Nations Development Programme, https://doi.org/10.1080/09640560600747554. [61]

Universal Rights Group (2021), "The Escazú Agreement: A landmark regional treaty for environmental defenders", https://www.universal-rights.org/contemporary-and-emerging-human-rights-issues/the-escazu-agreement-a-landmark-regional-treaty-for-environmental-defenders/. [42]

UPRA (2021), *Identificación general de la frontera agrícola en Colombia, a escala 1: 100.000*, https://sipra.upra.gov.co/. [53]

UPRA (2020), *Informalidad de la tenencia de la tierra en Colombia*, https://www.upra.gov.co/documents/10184/104284/01_informalidad_tenencias_tierras (accesed on March 2022). [12]

UPRA (2018), *Análisis de distribución de la propiedad rural en Colombia. Resultados 2018*, MADR, UPRA. Bogotá, https://www.upra.gov.co/en/Publicaciones/Distribucion_2018.pdf (accessed on October 2022). [9]

UPRA (2018), *Análisis de los conflictos de ordenamiento territorial y productivo que afectan el uso eficiente del suelo rural*, Unidad de Planificación Rural Agropecuaria, MADR, Bogotá. [52]

WOLA (2021), "Indigenous communities in Colombia face an unresolved protection crisis", https://www.wola.org/2021/05/indigenous-communities-in-colombia-face-an-unresolved-protection-crisis/. [40]

WRI (2021), “Colombia shows leadership in the race against climate change”, World Resources Institute, https://www.wri.org/insights/colombia-shows-leadership-race-against-climate-change. [50]

WWF (2017), “Heritage Colombia”, World Wildlife Fund, https://www.worldwildlife.org/magazine/issues/winter-2017/articles/heritage-colombia. [59]

Notes

[1] Information obtained from the website of the *Registro Único de Víctimas*, which records the annual number of victimising events due to the armed conflict. The number does not reflect the total number of persons, since a same person may have reported more than one victimising event along the years (https://www.unidadvictimas.gov.co/en/node/37394).

[2] CONPES Document 3958 *Strategy for the Implementation of the Multipurpose Cadastre Public Policy*, 2019.

[3] The term “Roma communities” encompasses the “Pueblo Rrom-Gitano”.

[4] In the original: “*Como dentro de la juridicidad occidental, es un contrasentido que la tierra sea sujeto del derecho, entonces, hay que inferir que la Constitución le otorga “derechos” es al territorio del resguardo como una entidad que en su identidad no solo expresa parte de nuestra nacionalidad colombiana, sino que es un concepto que también se ubica en el terreno de la cultura. En consecuencia, los resguardos son algo mas que simple “tierra” y algo menos que “Territorio indígena”; es decir, que no son términos iguales en la conceptualización constitucional, aunque, en una ley de ordenamiento territorial, geográficamente podrían coincidir. Pero, actualmente, todavía no se puede decir que un resguardo es una Entidad Territorial.”* (T606/2011 of Colombian Constitutional Court).

[5] According to DNP (2020[35]), the communities are: Arhuaco de la Sierra, Asociación de resguardos indígenas PACANDÉ (ARIP), Asociación de resguardos Pijaos del Tolima (ARPIT), Cabildo indígena de Rio Páez de Corinto, Cristiniania, Iroka, Kanjuano, Muellamuez, Totoró and Zenú San Andrés de Sotavento. Note that *cabildos* and associations represent several reserves, hence the total number of 41 reserves.

[6] For a critique of the Pacific-centrism in the constitution of Afro-Colombian land rights, see Restrepo (2005[65]).

[7] Information obtained from interviews conducted by the OECD in October 2021.

[8] According to interviews conducted in February 2022 in Colombia.

[9] According to document provided by the CNTI to the OECD in February 2022, entitled “*Aproximaciones en Materia Territorial Indigena para la OCDE*”.

[10] According to interviews conducted in February 2022 in Colombia.

[11] Decree 2353 of December 26 of 2019.

[12] The Constitutional Court has recognised the need to respect community-specific protocols and procedures in relation to Free Prior and Informed Consent in the case of the Embera Chamí people in Caldas (Case T-530/2016).

[13] For a more detailed analysis of the process of elaboration of the Environmental Zoning Plan, see Ministerio de Ambiente y Desarrollo Sostenible (2018[66]).

6 Implementing the rural policy in Colombia

This chapter focuses on ways to improve the implementation of rural policy in Colombia. It first provides an overview of the main challenges and ongoing transformations that undermine an effective implementation of a comprehensive rural policy approach for Colombia, then it considers the current institutional setting and multi-level governance mechanisms to implement rural policies. The final section highlights five key actions that can help improve the implementation of the rural policy in Colombia.

Assessments and recommendations

Colombia has advanced in developing comprehensive strategies and diagnoses for rural development. Building upon the established Integral Rural Reform (IRR, Chapter 3), the government can further advance in designing and implementing a holistic national rural policy that covers all rural regions and unlocks synergies among different economic sectors in rural economies to boost national well-being and improve social cohesion.

The country is undergoing a number of transformations that need to be considered for the effective implementation of a holistic rural policy. They include the transition to a territorial approach that still associates agriculture with rural development, ongoing implementation of the peace process and effective implementation of vertical and horizontal co-ordination instruments with a territorial approach.

Colombia already has well-established co-ordination mechanisms and planning instruments but they can evolve further and be better mobilised to make the most out of these transformations and attain an effective implementation of the national rural policy. To this end, the government needs to address some specific challenges:

- A great number of actors in charge of policies for rural development, without clear leadership and co-ordinating mechanisms.
- A complex policy delivery system for rural beneficiaries, with a monitoring process of implementation that incentivises coverage rather than promotes long-term outcomes.
- Local government with a lack of financial and administrative capacity that hinders an effective and coherent policy implementation, nurtured by a local shortage of skills and low ability to raise own revenues to support investment for rural development.
- Civil society's lack of participation in rural development policies, which is underpinned by a lack of trust in the government and conflicts among groups, for example around the land.
- Unclear structures and incentives for rural and urban municipalities to partner and conduct joint projects.

Recommendations

- ***Create an inter-ministerial co-ordinating institution for national rural development policy*** to harmonise the implementation of the comprehensive national rural policy that leverages the IRR (Presidency, Ministry of Agriculture and Rural Development [MADR] and National Planning Department [DNP]). The inter-ministerial bodies of Chile and Finland can be a guide for Colombia. This institution should be characterised by:
  - The institutional authority granted by the presidential mandate to co-ordinate ministries and harmonise the implementation of the national rural policy that leverages the IRR and its national sectoral policies for rural development. This could take the form of a new institution or an existing one strengthened.
  - Capacity to use bottom-up planning instruments to adjust national policies for rural development to local needs. To this end, the institution can co-ordinate Development Plan with a Territorial Approach (PDET) instruments for all types of rural regions to align them with sectoral policies and budgets.
  - Ability to co-ordinate investments and co-invest in rural development policies. This could be done by overseeing the implementation of inter-ministerial budget lines focused on rural policies or funds for rural development. Resources allocated to PDET municipalities (Peace Fund) and to other rural municipalities should be used separately.

- ***Foment bottom-up planning instruments to identify local priorities across all types of rural regions and guide the implementation of policies for rural development***. To this end, the government [Presidency, DNP and inter-ministerial co-ordinating body] should improve existing co-ordination and planning instruments at the subnational level by improving the articulation of PDETs with other subnational planning mechanisms (e.g. Territorial Pacts, Regional Commissions for Competitiveness and Innovation) to cover all rural areas in municipalities with consistent and stable instruments over time.
- ***Reduce complexity in the delivery of rural policies and adopt the right incentives in the monitoring system of policy implementation***. To this end, the national government (Presidency, MADR and DNP) should:
  - Create a one-stop-shop at the regional level to deliver different polices for rural development in a co-ordinated manner. This could involve setting offices at the level of functional subregions to gather and co-ordinate the delivery of programmes from affiliated MADR agencies along with those from other ministries. Different offices per region could be set, for example, some focused on delivering productive programmes and others on social programmes. In a sense, they are the local equivalent of the inter-ministerial co-ordinating institution.
  - Consider creating a hierarchical structure of indicators in the monitoring system of policy implementation, which differentiates among output and outcome measures and includes transversal indicators to foster co-operation.
  - Evaluate the implementation of rural programmes with multiyear budgets to recognise the difficulties of conducting projects in some rural regions.
- ***Expand the staff and financial capacity of regional and municipal governments, with a differentiated approach per type of region***. To this end the national government (DNP in co-operation with sub-regional governments) should:
  - Formalise systemic training for local government officials, for example by strengthening the regional programmes from educational institutions such as the Superior School of Public Administration – ESAP or DNP's Strategy for New Territorial Leader. The government should adopt a proactive approach to reach the weakest governments with specific training strategies.
  - Support inter-ministerial associations to conduct complex policy tasks for some municipalities (e.g. gathering information, land use management plans, investment attraction strategies). The example of Business Joensuu in Finland could be a guide for Colombia.
  - Evaluate strategies to reduce the number of earmarked taxes and increase the fiscal capacity of local governments. This involves supporting local governments in updating the cadastre to improve the performance of property tax, allowing instruments such as congestion charges or tolls and promoting more flexibility in terms of user tariffs and local fees. For rural municipalities with higher capacities, borrowing could be further used as a financing mechanism.
  - Expand the certification system to measure administrative capabilities as a reward system to encourage regions to increase their own resources. This can be eventually territorialised to reproduce measures at the municipal level within each region.
- ***Enhance community capital to strengthen the involvement of civil society in rural policy and increase accountability and trust***. To this end, the national government (DNP and sub-regional governments(should:

- Encourage the development of community-led initiatives attached to local policy goals. This might involve setting support schemes for projects from community networks, supporting social enterprises and establishing (online or in-person) platforms to gather public opinion and foster community participation in local policy decision-making.
- Leverage actions from private sector associations to improve rural well-being. This includes strengthening regional platforms to co-ordinate actions from local farmers' associations along with other types of local companies (e.g. tourist companies) and aligning private sector social investments (e.g. Work for Taxes) with public investment.
- Introduce a whistle-blower protection procedure and bring all purchases by subnational governments into the central procurement entity (*Colombia Compra Eficiente*). These actions can help improve trust in government and reduce corruption (OECD, 2022[1]).
- Leverage bottom-up planning instruments (like PDETs) to empower local groups to identify local projects that could be accomplished relatively quickly with low investments and thus pave the way towards greater trust in government actions. Poland's Strategy for Responsible Development could be a guiding example for Colombia.

- ***Promote the formation of urban-rural partnerships to attain cost-effective investments and economies of scale in local projects***. To this end, the government of Colombia (DNP) should:
  - Establish clear guidelines to conduct urban-rural partnerships, in which municipalities can identify the benefit of co-operation and the legal and institutional arrangements that will allow them to co-operate. These guidelines should also contain procedures to set partnerships with structures that ensure an equal voice and vote for partners, regardless of the financial capacity and monitoring indicators on the outcomes of the collaboration.
  - Co-ordinate national rural and urban policies to set joint institutional and financial incentives to develop urban-rural partnerships. This can be done through common goals between MADR and the Ministry of Housing, City and Territory, or greater financial incentives for urban-rural joint projects.

Introduction

As mentioned in Chapter 3, Colombia can benefit from a more holistic approach to rural development. It has already moved in this direction, aiming to create strategies for rural development with the design and implementation of comprehensive plans. The Integral Rural Reform (IRR) sets the basis for a holistic approach, elaborating a comprehensive diagnosis and establishing plans that target different priorities for rural development. Building upon these efforts, the country can further develop a policy to cover all rural regions (from poorest to wealthiest) and unlock synergies among the different economic sectors to boost national well-being and improve social cohesion, with a view to decreasing regional inequalities.

However, for Colombia, the main impediment to achieving an effective policy for rural development lies in governance and co-ordinated implementation. In this regard, it is critical to put in place well-functioning mechanisms of governance to strengthen vertical and horizontal co-ordination across levels of government and at the national and local levels. In parallel, municipal and regional governments should strengthen institutional capacity and their capacity to enter into local partnerships, improve accountability and improve their delivery of services.

This chapter focuses on ways to improve the implementation of rural policy. Governance is broadly defined beyond the formal institutions and includes the full range of agents that participate in the process. The chapter first provides an overview of the main challenges and ongoing transformation that could hamper the implementation of a holistic national rural policy for Colombia. This is followed by a section that considers the current institutional setting and multi-level governance mechanisms to implement rural policies. The final section highlights five key actions that can help improve the performance of rural policy in Colombia. These are:

- Establishing a leader to co-ordinate rural policy.
- Differentiating rural policy and reducing complexity in implementation.
- Strengthening administrative and financial government capacity.
- Building community capital to better partner with civil society.
- Promoting urban-rural partnerships.

Transformations in rural Colombia shaping the implementation of rural policies

Implementing rural policies in Colombia must take into account a number of transformations underpinning rural development, rural policy design and effective implementation. These include:

- Colombia transitioning to a territorial approach to rural development, where policies and programmes still focus on agricultural modernisation and cities play an important political role (see Chapter 3). Agriculture is indeed a relevant sector for the rural economy, with a dual structure of a large number of small farmers, some still in substance production and a relatively reduced number of medium- and large-sized farms. Agricultural policy is still largely implemented through direct subsidies, still with a low focus on increasing investments in agricultural productivity, e.g. public goods (OECD, 2015[2]). While improving agricultural productivity should remain an important policy priority, efforts also need to prioritise addressing structural challenges in rural regions (e.g. connectivity, land security) that will eventually incentivise some farmers to invest in their enterprise and others to find alternative income sources.
- Colombia transitioning through the implementation of a peace agreement in the middle of a legacy of decades of violence, civil unrest and illegal activity that particularly affected rural areas. Peace implementation is progressing but the pace is slow, while the country still faces path dependency effects in terms of civil unrest in some rural areas and remaining violence in others with a lack of social cohesion among different groups, for example around land conflicts (Chapters 2 and 5).

These conditions might prevent both civil society and entrepreneurs from playing an effective role in rural development and attracting youth and private investments.

- Colombia also undergoing a transformation in the use of vertical and horizontal co-ordination mechanisms (e.g. Territorial Pacts, Agreements for Prosperity, association of departments) along with efforts on place-based policies for regional development (PDETs) and alignment of different planning instruments (e.g. territorial regional development plans and land use plan) (OECD, 2018[3]; 2014[4]). However, local governments face low fiscal autonomy and a lack of high-quality staff and information systems to plan and implement policies, which makes them a weak delivery vehicle and partner for rural development policy.

Improving the implementation of rural development policy must take into account these transformations to increase the well-being of rural households in Colombia through improved farm income and alternative sources of income for farm households (Chapter 3).

Colombia's development path yields a dual economy

Rural Colombia is characterised by a dual economy in various aspects: within its agricultural activities, between formal and informal employment and between rural and urban regions.

In the agriculture sector, some medium and larger farms have been modernising over the past years with good integration into both national and international markets, while a large number of small farmers struggle to be competitive and many still remaining in substance production. Agricultural policies need to help highly integrated firms (e.g. palm oil, cacao, sugarcane) increase their international competitiveness by improving infrastructure and access to international markets, digitalisation and innovation amongst other things. Policy should also focus on firms and farms to develop value chains and increase value-added in their activities and rural regions. Skills development, developing networks and improving structural factors will help in this respect. Traditional policies for subsistence farmers have traditionally relied on subsidies and dependency schemes, crowding out entrepreneurial initiatives and making many subsistence farmers depend on the public sector. These latter efforts will not deliver sustainable growth dynamics in the medium and long terms. Effective implementation of rural policies will need to revert the dependency mentality and promote bottom-up-led development efforts.

Colombia's labour markets include formal and informal employment, with a large share of workers in the informal labour market present in rural regions. Rural policies need to recognise and take into account this dual economy. Estimates of the degree of informal work in Colombia show a slow decline at the national level (Chapter 2). However, in rural areas, informal employment is likely far higher given a lower level of formal education, lower skills and higher presence of ethnic minorities. This suggests that there are two distinct dimensions of informal labour markets in Colombia. The first reflects differences in skills and capabilities among people that can act as a barrier to formal employment. In addition, there is a rural/urban difference, where there is a larger relative scarcity of formal employment opportunities in rural Colombia.

Reducing the significance of the informal economy and providing regular employment is a necessary first step in improving workforce skills, which will in turn lead to improvements in productivity. In recent decades, the informal economy in Colombia has declined in importance as economic development has led to greater integration of firms and workers into the formal economy, but there is scope for improvement. The OECD Economic Survey (2022[1]) has identified two recommendations in this respect: establishing a comprehensive strategy to foster formalisation, including lower non-wage costs, stronger enforcement and improvements in tax administration, and reducing the tax burden on formal labour income by gradually shifting the financing burden of social protection towards general taxation.

Another possibility for understanding duality is that rural and urban economies are fundamentally different. Economic and social integration associated with national development leads to the integration of rural and urban regions but urban economies and rural economies remain structurally different. Urban economies

benefit from proximity, density, a large home market, sophisticated capital markets and the presence of major research institutions. In contrast, rural areas have small labour markets, low-density settlements, truncated economies, limited local capital markets, an ongoing reliance on primary industries and first-stage processing and other tradeable goods and services, and few sources of formal research and innovation (OECD, 2016[5]).

In Colombia, urban places are where more people live and work and greater growth was expected to speed up national development. In addition, these places have more powerful political leaders, more educated people and greater access to information and the central government's decision-makers.

These "low-density" economies can however achieve relatively high rates of growth and improve their productivity over time so they make a positive contribution to national economic growth but few will grow to become major urban centres. Importantly, for rural regions to make their full contribution, national governments have to make investments in rural development but these investments will differ significantly from the approaches used in urban regions. In both cases, a development strategy has to be defined to support policy coherence and complementarity, but the nature of the strategy and the subsequent policy regimes will differ because the underlying economies differ.

Effective implementation will also need to align and connect urban and rural development policies, recognising their differences but also understanding the strong linkages and complementarities that exist between the two. As mentioned in previous chapters, Colombia's polycentric territorial structure provides a potential to benefit from urban-rural interlinkages around various dimensions, economic (e.g. labour markets), social (e.g. shared public services) or environmental. Last section of this chapter will further develop this topic.

Instability has shaped rural development and mitigated institutions

National development policies have largely focused on urban development over the past years, against rural financial and programmatic policy focus captured by the security agenda and poverty reduction. Rural support was rather scattered and relied on political alliances to bargain with national policies.

Improving rural conditions is a long-term process that requires consistent forms of support to have a significant impact. If rural policy and programme recipients are conditioned to believe that a specific form of government support will only be in place for a few years or relies on political alliances, they will rationally choose to use government support to accomplish short-term objectives, rather than make longer-term investments that result in a greater benefit. Alternatively, they may choose not to expect to receive a policy or programme from the national government. In either case, policy churn is likely to be a factor in the limited progress of rural areas but it is likely not the major impediment.

Instead, the main barrier to providing effective support for rural progress in Colombia mainly lies in a weak system of rural governance that lacks accountability and strong will, beyond poor selection of rural policies. The capacity of local governments is a central pillar in attaining desirable policy outcomes. In many cases, this is not an issue of capacity per se but one of the incentives to see at the local level the benefits of following and complying with the overall national policy strategy. The low local government capacity in Colombia as in many other countries is a topic that has been long studied and whose solution is linked with economic development itself. It means it is a long-term rather than a short-term strategy.

Yet, some actions today can help foster this greater capacity. One is empowering the community to make local governments accountable for their actions or inactions. This requires information and clear communication channels to evaluate what actions the government takes and the compliance with the strategy that was set in advance. However, information is not enough, greater accountability also requires transparency in policy making and an educated civil society that is empowered to monitor the policy implementation.

In Colombia that has happened until certain extend at the national and urban level, but less so in rural areas. Many factors have prevented this accountability from happening in Colombian rural areas, including the low level of education and capacity to access information (Internet, roads), the dispersion of settlement patterns within municipalities that tend to cover large extensions and the internal conflict violence that reduces mobility and roots a fear to speak. Some of these bottlenecks are being resolved with recent policies (see previous chapters) but it might take time. As discussed in Chapter 3, prioritising those cross-cutting issues for rural development should be a state priority.

Despite these challenges, the 2016 peace agreement is an important milestone for rural development that has set new goals and a renovated vision to address rural issues through a holistic approach (Chapter 2). This agreement already sets the rural policy approach (IRR), the mechanism of implementation (PDETs and plans) as well as the actors to be involved. It can be improved of course but more important is the implementation of those agendas and the co-ordination of that policy approach to extend to all rural areas in the country.

In sum, for effective implementation, rural policies will need to break through dependency relations and promote bottom-up initiatives, establish good linkages between rural and urban policies, recognise the differences between the two as well as their strong interdependencies and potential for synergies. Finally, effective implementation will need to strengthen institutions and increase capacity in those rural areas, particularly exposed to conflict during the last years.

Subnational governments in Colombia and rural development

In all countries, there are multiple levels of government, each of which carries out specific functions and has specific powers or authorities. Multi-level governance plays a key role in aligning and providing coherence between national- and local-level strategies and effectively implement public investment. Multi-level governance seeks to identify ways to make this complex system perform coherently to achieve better societal outcomes.

For rural policy, there is a need to differentiate national policies to the needs and characteristics of different rural regions, develop common agendas across local governments in rural areas to make the most of economies of scale and scope and avoid fragmented policy outcomes as well as aligning common development agendas across levels of government.

The result is a classic principal-agent problem (Box 6.1), where subnational government actors that need to implement the national policy's strategy have little incentive to do so. Rural development is a particularly difficult challenge for a national strategy, because the needs, opportunities and resources in the multitude of rural places in Colombia, as happens in other countries, are hugely different. One that so little progress has been made in Colombia, despite consistent efforts by each incoming administration to establish rural development strategies that try to address the same set of problems, is that too little attention has been paid to better align incentives at subnational levels of government to encourage better participation.

Box 6.1 Principal-agent problem

The problem occurs when one party, say an employer, has a worker whose performance cannot be directly monitored but whose activity is important for the well-being of the firm. Further, we assume that the employee has control over his/her actions and has at best a weak initial incentive to behave in a way that maximises benefits to the firm. Given this situation, it is in the firm's interest to find a way to motivate the employee to alter his/her behaviour. Possible ways to do this could include: offering a share in firm profits, paying a performance bonus or switching payment from an hourly wage to one

based on the amount of output. By aligning the interests of the worker with those of the firm, the firm is more likely to achieve better results. The principal-agent problem exists because of information gaps: in the example, the inability to directly monitor employee performance and not knowing what motivates the employee.

The principal-agent problem readily extends to the government. One level of government may delegate the task of delivering a programme to another level but the interests of the government delivering the programme may differ from those of the initiating government. Without some effort to align the interests, it is unlikely that the initiating government will see the expected results for the programme. More intensive monitoring of the programme delivery process may influence behaviour, as would including an evaluation of results, but both these efforts increase costs and divert resources from programme objectives. Where the costs of monitoring are high, it is particularly important to try to structure agreements between the principal and the agent in ways that better align the interests of the agent with those of the principal, but for this to happen the principal has to invest effort in better understanding the motives of the agent.

There is a diversity of government actors to implement rural development

A broad number of national public actors intervene in rural development policies. As in many countries, policy towards rural areas in Colombia is designed and implemented by an important number of ministries or public agencies. Colombia's MADR is the main responsible body for the implementation, administration and regulation of national policies related to agriculture, livestock, forestry, food and rural development. This ministry, however, implements its policies through:

- Seven affiliated agencies, that are in charge of planning, financing, and implementing policies for agriculture and rural development. They have administrative autonomy and own resources, with offices in most of Colombian regions. These agencies include:
  - The Colombian Agricultural Institute (ICA), responsible for agricultural sanitation.
  - The National Authority for Aquaculture and Fisheries (AUNAP), in charge of executing the fishing and aquaculture policy as well as supporting research on fishery and aquaculture.
  - The Unit for the Management of Dispossessed Lands (URT), serving as an administrative body of the national government for the restitution of lands of the dispossessed.
  - The Rural Development Agency (ADR), responsible for managing, promoting and financing agricultural and rural development to advance programmes with regional impact.
  - The National Land Agency (ANT), responsible for the policy of social ordering of rural property formulated by MADR.
  - The Rural Agricultural Planning Unit (UPRA), in charge of guiding the management policy of territory for agricultural uses, through the planning of the productive and social ordering of the property.
  - The Special Administrative Unit for the Management of Restitution of Dispossessed Land (UAERGTD), serving as an administrative body of the national government.
- Seven linked financial and logistic bodies responsible for guiding and implementing policies on topics such as funding productive activities related to the sector, other financial services and storage and product distribution. These entities have more autonomy with respect to MADR than affiliated entities in terms of resources allocated and objective.
  - The Agrarian Bank of Colombia (Banagrario).
  - The Financing Fund for the Agriculture Sector (FINAGRO).
  - The Colombian Agricultural Stock Exchange (BMC).

  - The Veterinary Products Company (VECOL).
  - The Funds and Corporations of Wholesale Distribution Market.
  - The Agricultural Development Trust Company (Fiduagraria).
- And two mixed corporations:
  - The Colombian Agricultural Research Corporation (Agrosavia), in charge of the generation of scientific knowledge and agricultural technological development through scientific research.
  - The International Colombian Corporation (CCI), in charge of managing and canalising international co-operation.

Moreover, the ministry is supported by seven sectoral advisory and co-ordination bodies, which seek to align policies across ministries, subnational governments and affiliated agencies:

- The National Commission of Agricultural Credit.
- The Advisory Committee of Forestry Policy.
- The National Council for Agrarian Reform and Peasant Rural Development.
- The National Council of Secretaries of Agriculture. It has a presence at the local level and generates recommendations for the design and implementation of agricultural policy.
- The Superior Council of Administration for Land Restitution.
- The Sector Council for Agricultural Development.
- The Superior Council for Rural Land Planning.

At the subnational level and in addition to the office of affiliated agencies:

- Regional councils for agricultural supply chains that work to link primary production to the agro-food industry and provide support for the marketing of agriculture products.
- Municipal Units for Agricultural Technical Assistance that act as a channel for interaction with agricultural producers.

Additionally, almost all other sectorial ministries establish policies for rural development. Many of those have been mentioned in this report, including the Ministry of Environment and Sustainable Development, the Ministry of Education, the Ministry of Housing, City and Territory, the Ministry of Transport, the Ministry of Commerce, Industry and Tourism, the Ministry of Mines and Energy or the Ministry of Science, Technology and Innovation.

In this ecosystem of actors, the success of the rural and agricultural policies that are designed and planned by MADR relies heavily on the capacity of implementation and financing of the affiliated and linked agencies, which in turn operate through decentralised regional offices. If well-coordinated, these governance schemes could bring some advantages as it creates specialised agencies focused on specific policy areas that can innovate in their policy domains and be accountable for the results.

As in Colombia, most OECD countries (42%) use both deconcentrated national agencies[1] and autonomous regional agencies[2] to deliver rural policy at the regional level (OECD, 2020[6]). A handful of countries (29%) deliver rural policy solely through deconcentrated national agencies (e.g. Finland, Germany, Ireland), while a smaller number (15%) rely on autonomous regional agencies (e.g. Australia, France, South Korea). A small group of countries (14%) use other types of structure including a whole-of-government approach (Canada), devolution of implementation to regions and municipalities (e.g. Mexico) or implementation directly from the national level (e.g. Latvia, Luxembourg). One approach is not better than the other, as it very much relies on the administrative structure of the country.

However, without the right co-ordinating and evaluation mechanism, the policy action of these agencies can become dispersed, missing opportunities to attain economies of scale with other programmes, duplicating actions and focusing on coverage and budget execution to attain pre-defined goals. In fact, this

is partially the case in Colombia (see Chapter 3). These issues are not new for the government and have also been identified by the Mission for the Transformation of the Countryside in 2014. The diagnosis at the time made particular emphasis on the atomisation in the execution of the sector's investment budget and the high outsourcing costs, partially explained by the concentration of resource execution in MADR.

Moreover, the existence of agency offices across the regions is not a guarantee of sound identification of needs, policy implementation or co-ordination. Many of these regional offices do not have administrative autonomy and had little financial operability, which makes them rather operators and processors of requests that send information to the central level and await approval. In some cases, as with the National Land Agency (ANT), the lack of decision capacity at the regional level slows down land-related requests and hampers credibility and trust with the local community (Chapter 5).

While the newly created ADR and ANT worked in 2015 at making the delivery of rural programmes and programmes related to land formalisation more effective, the challenges of atomisation, duplication and lack of responsiveness capacity of some offices remain (Chapters 3 and 5).

The result is a hierarchical structure where national governments set broad objectives but action is ultimately delegated to local actors. In principle, the extent of this subsidiarity is determined by where the greatest competency exists to carry out a particular role or function. A number of factors can limit the delegation of responsibility.

There are inter-ministerial mechanisms to articulate policies at the national level, but none specifically for rural policy

Horizontal co-ordination across levels of government involves an approach in which policy makers review policies to ensure people across the country, including those in rural regions, receive equitable treatment (Shortall and Alston, 2016[7]).

In Colombia, at the national level, co-ordination among ministries and policies is initially done through the preparation of the National Development Plan (PND), which sets common objectives and strategies. Furthermore, the country has a number of supra-ministerial bodies to co-ordinate national policies across ministries, including (OECD, 2018[3]):

- The National Council for Economic and Social Policy (CONPES). The CONPES is the highest national planning authority in the country and serves as the advisory body to the government regarding public policies in all matters.
- The Council of Ministers.
- The Council on Fiscal Policy.

None of these councils is specific to one single sector or topic. MADR's sectoral advisory and co-ordination bodies are responsible for inter-ministerial co-ordination. But, as explained before, these bodies do not have the compelling capacity to gather other ministries, with meetings that tend to occur on a case-by-case basis without attaining sustainable co-ordination of farms and off-farm policies.

Instead, currently, the most effective instrument to co-ordinate different farm and off-farm activities in rural regions is in the form of a planning instrument at the subnational level: the Development Programs with a Territorial Approach (PDETs) (Box 6.2). These development programmes have the advantage of being built locally through 170 municipal pacts but then implemented through a functional approach- 16 sub-regions. Sub-regional implementation is done through Action Plans for Regional Transformation (PATRs) that are based on municipal pacts (Agency for Reincorporation and Normalisation, 2021[8]). These instruments are set to last 10 years after the peace agreement was signed but, given the delay in IRR implementation (e.g. development of national sectoral plans) and their capacity to serve as a bottom-up policy mechanism, the continuity of PATRs and PEDTs to co-ordinate rural policy between national and local government seems a cornerstone to attain a sustainable implementation of rural policy.

This mechanism is financed through a special fund called the Peace Fund, created in 2017, with the capacity to manage resources from various sources such as the General Budget of the Nation (PGN), royalties, international co-operation, private participation and others determined by law. The general royalty system is currently the main source of resources for this fund. Over the next decade, the completion of the peace process will require substantial fiscal efforts. Total implementation costs between 2017 and 2031 are expected to reach 12.9% of gross domestic product (GDP) (OECD, 2022[1]).

Box 6.2. The Development Program with a Territorial Approach (PDET), a co-ordinating planning instrument at the local level

The PDET was introduced in the peace agreement of 2016 as a planning and management instrument to implement the IRR in the municipalities selected by the agreement. These are 170 municipalities most affected by the internal conflict, with the lowest presence of state and management capacity and the highest rates of poverty and unmet basic needs. These municipalities cover 36% of Colombia's territory and host about 25% of the population.

The PDET use a placed-based approach focused on territorial functionality to plan and implement national programmes by grouping the 170 municipalities into 16 sub-regions. These sub-regions often cross regional boundaries. While sub-regions have irregular shapes, most municipalities in a sub-region are connected economically or in terms of population, with some exceptions. The PDET is implemented through the Territorial Renewal Agency (ART), which is attached to the presidency (created as a special purpose agency in 2015) and is the national counterpart in each region.

To define the PDET, an extensive consultation process was initiated in each municipality, then extended to the 16 regions. The process is divided into three major phases:

1. The first phase of the consultation aims to create local pacts that involve discussion in the various municipality settlements about local opportunities, problems and potential initiatives, with the participation by a wide range of local organisations, local interest groups and individuals. These settlement-level discussions are called pacts and are divided into three levels of agreements: ethnic, community and municipal.
2. The results are then aggregated by consensus into a municipal-level document called Municipal Pact for Regional Transformation (PMRT). This becomes a core document for the municipality and the ART. In total, there are 170 PMRT, 1 per municipality. Similar pacts are signed with various ethnic groups that have recognised status and have gone through a similar visioning exercise. In addition, there are also community agreements that commit municipalities and the ART to following the development strategy for each region.
3. Each sub-region is then required to construct a PATR based on municipal pacts (PMRTs), the ethnic pacts and the municipal agreements serving as a guide for the transformation of the region over the next ten years. The PATR is essentially a bottom-up sense of how the members of that region would like to see their area evolve. Essentially, this involves a process of identifying a place-based rural development vision. Eight pillars are used to frame the discussion of the PATR. They are:
    - rural property and land use
    - infrastructure and land suitability
    - economic reactivation and agricultural production
    - right to food
    - education services and early childhood support

- healthcare services
- housing, drinking water and sanitation
- reconciliation, coexistence and peacebuilding.

Collectively these topics describe the general parameters of development, but the relative importance of each pillar and the specific types of investments required are determined by each region. The PATR process also introduced three new approaches to constructing the development plans. The first is a territorial approach that combines multiple municipalities into a functional region that does not respect department boundaries. The second is an explicit recognition of the importance of ethnic and gender differences in constructing an equitable plan. The third is a shift from a focus on simply fixing problems to identifying existing assets that can be used to generate development.

Source: Agency for Reincorporation and Normalisation (2021[8]), *PDET*, https://www.reincorporacion.gov.co/es/reincorporacion/PDET/PDET-General-Noviembre.pdf.

Rural proofing, an emerging effort in Colombia

To undertake horizontal co-ordination of policies shaping rural development, some OECD countries apply rural mainstreaming to all sectoral policies (also known as rural proofing). This means deliberately reviewing new policy initiatives through a rural lens, to analyse impacts and implementation needs for specific rural characteristics. The overall goal of rural proofing is to ensure and monitor that all domestic policies and the different institutions and sectors take into account rural circumstances and particularities. For example, the United Kingdom (UK) has adopted a policy of rural mainstreaming and rural proofing to keep the needs of rural regions at the forefront (Box 6.3). In 2016, the European Union (EU) also committed to rural proofing its policies.

Box 6.3. Rural proofing in the UK

In the UK, rural proofing is integral to the policy-making cycle. In England, 9.8 million people (19% of the population) live in rural areas. Virtually all policies impact rural communities. Rural proofing helps achieve good economic, environmental and social solutions that contribute to growth. Rural proofing is a commitment by the government to ensure that domestic policies take account of rural circumstances and needs. It is a mandatory part of the policy process, which means that as policies are developed, policy makers should:

- Consider whether their policy is likely to have a different impact in rural areas, because of particular circumstances or needs.
- Make a proper assessment of those impacts, if they are likely to be significant.
- Adjust the policy where appropriate, with solutions to meet rural needs and circumstances.

The point of encouraging early assessments of expected, or likely, impacts in rural areas is a critical factor for rural mainstreaming. This type of prior assessment of policy goes well beyond a mere audit. It is about making the right evidence on rural dynamics available to the key decision-makers in a timely fashion so as to enable the introduction of corrective measures. Rural proofing applies to all policies, programmes and initiatives and applies to both the design and delivery stages. The UK Department for Environment, Food & Rural Affairs (DEFRA) Rural Communities Policy Unit (RCPU) has been established as the centre of rural expertise within government and is able to advise policy makers on the likelihood and possible scale of rural impacts and to suggest actions that might be taken to mitigate these. The RCPU can provide up-to-date information on rural areas and key rural stakeholders. At the

same time, DEFRA has developed a suite of local-level rural proofing materials, to guide and help local decision-makers to "rural proof" local policies and practices.

Source: OECD (2011[9]), *OECD Rural Policy Reviews: England, United Kingdom 2011*, http://dx.doi.org/10.1787/9789264094444-en.

In the case of Colombia, the IRR of the peace agreement promotes a type of rural proofing focusing on a number of sectoral policies. In this reform, the government acquired the commitment to implement a number of National Sectoral Plans that address many structural challenges for rural development (see Chapter 3). Yet, Colombia does not have a systemic approach to ensure new policies in sectoral ministries are suited to rural needs or characteristics.

Moreover, rural proofing as a rural policy strategy is not enough and, alone, brings some challenges. This approach is not fully effective if there is no co-ordination and integration among the sectoral policies that were rural-proofed. For instance, conducting rural proofing separately on transport and housing policies, without integration among them, will create inefficiencies in policy implementation and even undesirable outcomes (e.g. housing developments without transport connections) (OECD, 2020[6]). Taking a rural lens to sectoral or national policies may be challenging due to the difficulties in the ability of any single department to influence the behaviour and implementation mechanism of another department. As explained later, some countries overcome this issue by creating special inter-ministerial committees of rural policy development that instead focus on policy complementarities by co-ordinating different sectoral and political interests towards a single goal for rural development.

Co-ordination across agencies delivering programmes in rural areas needs to be improved

Different agencies attached to MADR have subnational branches that implement and adapt national projects. They include the Agency for Rural Development, the Colombian Agricultural Research Corporation (Agrosavia), the Unit of Land Restitution and the National Land Agency (ANT) along with financial institutions (see Chapter 5 for a detailed description of roles). They add up to other agencies with subnational branches that conduct programmes in rural regions, like the Agency for Reintegration and Normalization (ARN) which operates mainly in those municipalities most in need of national interventions (PEDT municipalities).

MADR programmes struggle to co-ordinate interventions for the same beneficiaries. For example, some projects conducted by the ARN that successfully promote greater agricultural productivity in a specific productive unit do not formally co-ordinate with MADR's programmes of commercialisation (e.g. Contract Farming) to increase the probability of ensuring the sale of production on the markets. Similar fragmentation occurs with projects implemented by non-governmental organisations (NGOs), which are important operational actors in Colombian rural regions (Chapter5). This issue is partly due to the lack of platforms to formally agree *ex ante* on project allocation at the regional level and deliver projects to communities through unified channels.

The lack of programmatic co-ordination also runs the risk of generating programme dependency on the part of the recipient communities. Productive subsidies without adequate complementary training or commercialisation programmes rarely achieve lasting effects on beneficiaries and instead reduce incentives to innovate and find solutions with endogenous knowledge. For example, programmes that provide subsidies in the form of seeds or agricultural inputs annually, without adequately building the capacity to transform farming practices (e.g. by improving input use efficiency), create a dependency on the subsidy by the beneficiary. Once the programme ends, some farmers find themselves unable to afford the seeds or inputs needed for their production.

Greater complementarity among projects from different agencies could lead to stronger economies of scale in interventions and lasting effects in communities. To this end, the government needs to evaluate

mechanisms to reduce duplication at the regional level to reach communities and producers with the unified supply of programmes (the last section of this chapter will develop further this recommendation) and improve information mechanisms to allow agencies to share information about programmes.

There are many instruments for co-ordination with and among subnational governments

Many regional governments in Colombia have become strong actors in strategic planning. As an interface between the municipal and national levels, regional governments could be the ideal level of government to identify the needs of their rural municipalities, create rural-urban synergies and canalise the implementation of the policies shaping rural development policies. The strategic planning at the departmental and municipal levels is complemented by a robust normative structure. It includes the 2011 Organic Law on Territorial Organisation, Agreement 10 issued in 2016, outlining departments' cornerstone role in strategic territorial planning and Law 388 from 1997 establishing land use plans.

The Colombian government has created several tools to strengthen co-ordination with and between subnational governments. They include:

- Territorial Pacts (*Pactos Territoriales*) are an instrument of territorial development planning using a voluntary agreement between different levels of government to articulate policies and programmes responding to the particular needs of the territories, which are linked to the objectives of the National Development Plan (PND). Pacts can be regional, departmental and functional and their timeframe, defined during the negotiation process, can exceed the government period. To avoid overlap for prioritisation and investment management, these pacts focus on social and economic investments and institution building for subnational governments.
- Contracts for peace (so-called *Contratos Paz*) were created to streamline the implementation of the peace agreement and to support the post-conflict process in conflict-affected departments.
- Agreements for Prosperity (*Acuerdos para la Prosperidad*, APP) are co-ordination mechanisms that derive from the Communal Councils. The focus of APPs is citizen participation to promote transparency and efficiency in policy making and implementation.
- OCADs (*Órganos Colegiados de Administración y Decisión*) are administrative instances that were created as part of the General System of Royalty Payments (SGR). They allow for the co-ordination of investment decisions of departments and municipalities through public sector management bodies.
- The Integral Performance Index (IPI) is a composite index that measures subnational governments' capacity against indicators for efficiency, efficacy and compliance in the execution of their policy and programming responsibilities.
- Regional Commissions for Competitiveness and Innovation are platforms to co-ordinate and articulate the different actors at the regional level that develop activities aimed at strengthening competitiveness and innovation.

Moreover, horizontal co-ordination among subnational entities is encouraged through:

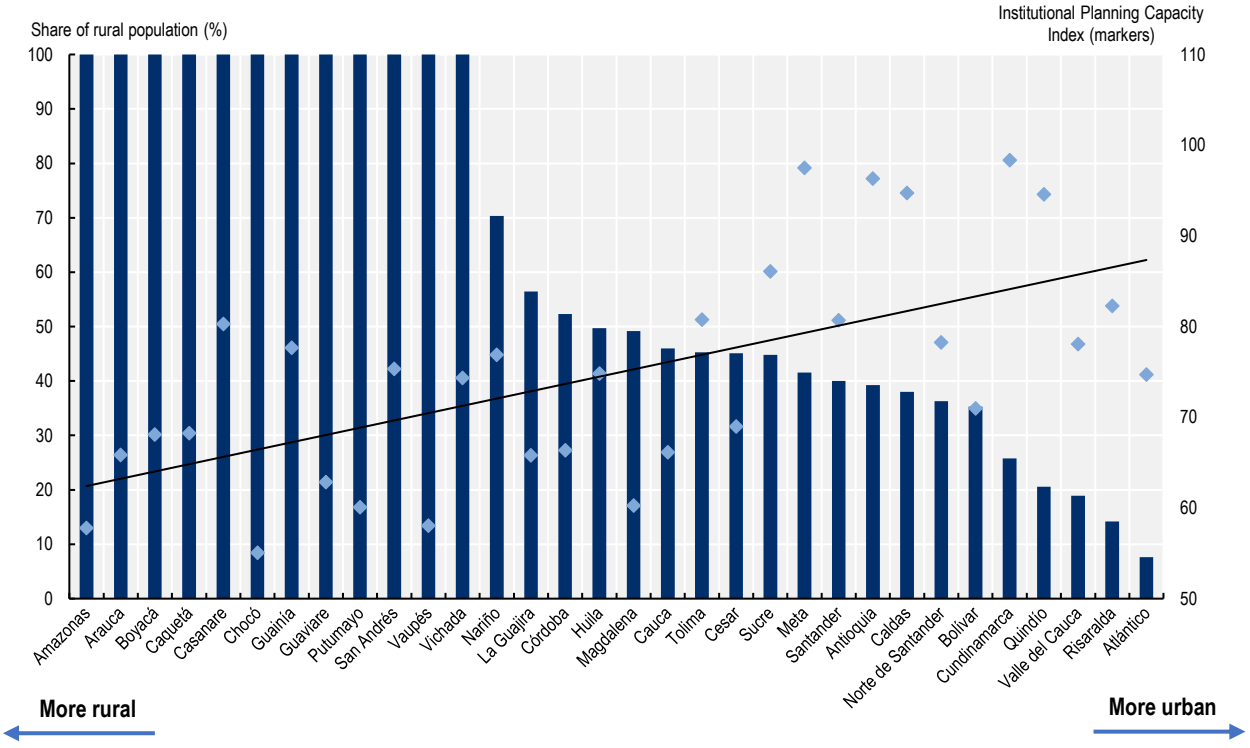
- Associations of municipalities and departments, metropolitan areas.
- Administrative and Planning Provinces (two or more municipalities within a single department).
- Administrative and Planning Regions (between two or more departments), regional pacts or alliances, among others.

Moreover, the planning instruments with a territorial approach that emerged with the peace agreement are set to be strong mechanisms to co-ordinate national policies and investments in targeted territories. The two main instruments are the PDETs (Chapter 3) and the Areas of Interest for Rural, Economic and Social Development (Zidres), which are development instruments for areas isolated from urban centres. Yet, as of 2022, the country had only one Zidres declared in the municipality of Puerto López for which the first

call for productive agricultural projects has not been carried out. These instruments are still in the early stages of implementation and could be further adapted to deliver locally adapted policies for rural municipalities.

Despite the different instruments for subnational co-ordination, local government capacity in rural regions remains weak (Figure 6.1). In addition, rural areas can suffer from high levels of corruption, large informal economies, low law enforcement and limited accountability all of which increase the likelihood of implementation problems.

Figure 6.1. Institutional Planning Capacity Index by degree of rurality in Colombian regions, 2020



Note: The Institutional Planning Capacity Index, developed by the DNP and based on the needs of its value groups, projects, objectives, goals and results, measures the ability to define the best courses of action and resources to achieve them, identify risks and design mechanisms for monitoring, control and evaluation.
Source: DNP (2021[10]), *Resultados Medición Desempeño Municipal 2020*, Dirección de Descentralización y Desarrollo Regional.

Subnational governments have wide-ranging competencies but limited fiscal autonomy

Colombia is described as a unitary state with partial autonomy of regional authorities. It has three levels of government – national, regional and municipal – where the majority of competencies are shared between all levels of government (education, healthcare, water and sanitation, housing).

For each level of government, there are elected leaders (President, Governors and Mayors), each of which has a particular constituency that provided political support and an electoral mandate to address the specific concerns of their electorate. And, at each level, there are other elected officials who have an influence on how and what the government does but with considerable differences in the specifics of that government's role. In each level of government, there are agencies or ministries that have specific responsibilities and programmes they manage and they are evaluated on the basis of how well these specific responsibilities are carried out.

Colombia is one of the most decentralised unitary countries in Latin America but the level of decentralisation is low compared with OECD countries. Subnational governments (SNGs) have significant resources and spending responsibilities, yet fiscal decentralisation is vertically imbalanced, as SNGs have wide-ranging competencies compared to limited fiscal autonomy, tending more towards a system of devolution rather than a decentralised one (OECD, 2014[4]).

Substantial resources and key responsibilities are allocated to Colombian subnational governments. Municipalities represent around two-thirds of the total SNG expenditure, while regions the remaining third. SNGs accounted for 68.7% of general government direct investment in 2019. As a proportion of SNG total expenditure, the share allocated to capital expenditure (18%) remains high with respect to the OECD average (11.5%). SNGs invest, in particular, in local infrastructure projects such as schools, hospitals and local roads.

Colombia's subnational governments are the main providers of public services, especially in education, which represents 31% of the total subnational government budget. Other important subnational government tasks include healthcare services (20%), economic affairs and transport (OECD, 2019[11]).

At the regional level, Colombian regions are responsible for planning and promoting the economic and social development of their territory. They exercise administrative functions of co-ordination and intermediation with the municipalities. The most important planning tool at the subnational level in Colombia is the Departmental Development Plan (DDP), which is the blueprint for the governor's term in office.

Municipalities provide services such as electricity, urban transport, cadastre, local planning and municipal police (Table 6.1). They set their vision and actions in Municipal Development Plans. They are classified as being "certified" or "non-certified" for the provision of certain competencies (such as healthcare, education, water and sanitation) also according to their population size, for which the central government determines universal coverage targets and quality standards. Only when a territorial administration reaches these targets and standards is it entitled to use the surplus resources in other areas of its own competency.

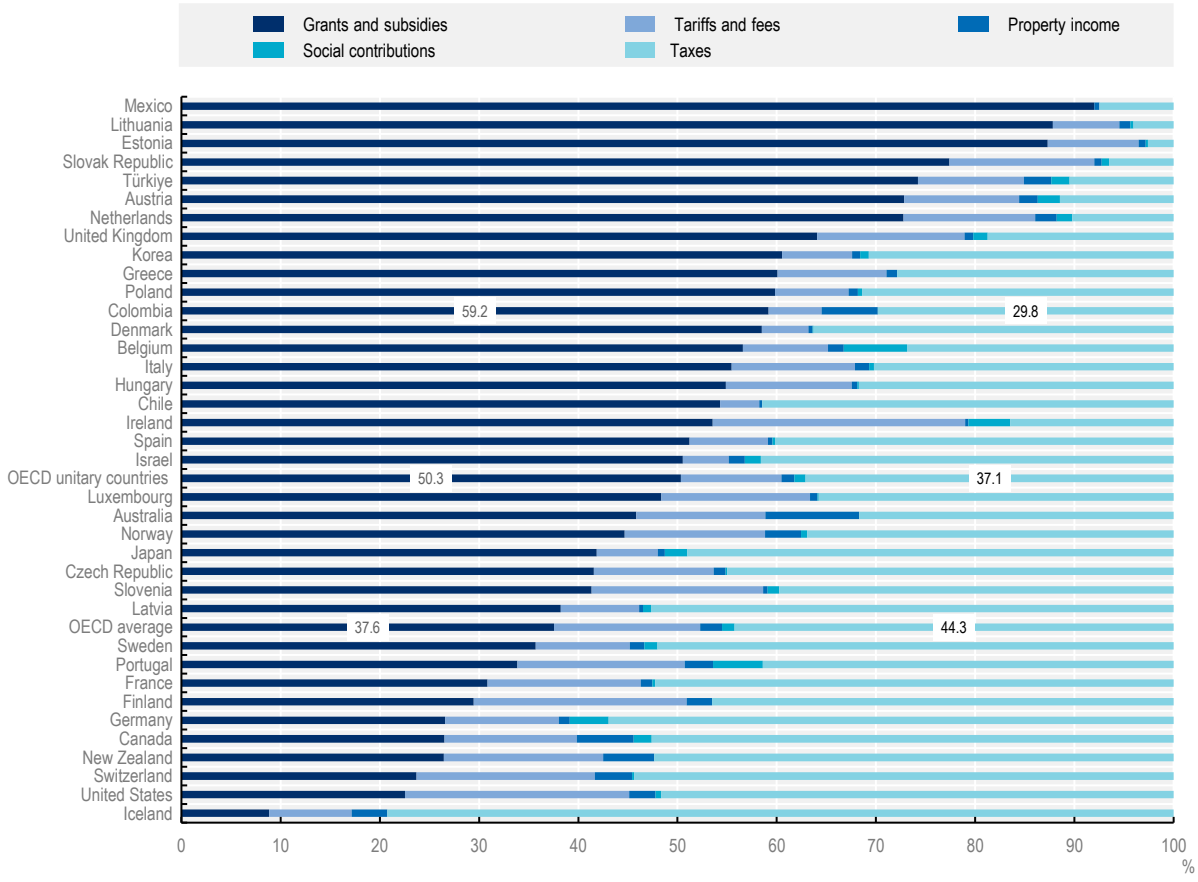
Table 6.1. Main responsibility of subnational governments in Colombia

	Regional level (departments)	Municipal level
1. General public services (administration)	Passport issuance	Civil registers; building permits; Management of municipal property and enterprises
2. Public order and safety	Risk and disaster management	n/a
3. Economic affairs/transport	Rural development; regional policies Regional territorial planning; traffic management	Promotion of social, economic and environmental development
4. Environmental protection	Environmental protection	Solid waste management; sanitation
5. Housing and community amenities	Co-ordination and co-financing of water schemes	Territorial planning; local infrastructure; water supply; housing
6. Healthcare	Public healthcare; services for the uninsured poor population Operation of the hospital network	Public healthcare; administration of the subsidised scheme; services for the uninsured poor population
7. Culture and recreation		Sport; culture; leisure
8. Education	Management of teachers and administrative personnel in basic and primary education	Early primary, and secondary education; construction and upkeep of buildings; canteens and extracurricular activities; payment of salaries

Despite the relevance of responsibilities at the local level, SNGs in practice have limited authority over how expenses are allocated, since most subnational taxes and transfers from the General Participation System (*Sistema General de Participaciones*, SGP) are earmarked (OECD, 2019[11]). Inter-governmental transfers for SNGs, which represented more than half of their total revenue (59.2%), are above the OECD average

(37.5% in 2019) (Figure 6.2). Tax revenue accounted for almost 30% of SNG total revenue, below the OECD average (44.5%). Income from assets (including oil and mining royalties) is a significant source of revenue for SNGs, in addition to tariffs and fees (around 5% of SNG revenue).

Figure 6.2. Categories of subnational government revenues in OECD countries, 2019



Source: Elaboration based on OECD (OECD, 2021[12]), *OECD Regional Database*, OECD Publishing, Paris.

The main central government transfer is the SGP. SGP funds are earmarked for the most part to current expenditures (labelled as “social investments” in Colombia), according to a formula based on a combination of population coverage, social equity and efficiency criteria. It benefits both departments (35% of the SGP) and municipalities (65% of the SGP). The SGP links transfers with sectoral policies and aims to improve the decentralised provision of basic services throughout the country: education, healthcare and water supply and basic sanitation, which accounts for around 96% of the SGP, the remaining 4% is made up of “special assignments” that include resources for indigenous communities, pensions, school meals and others.

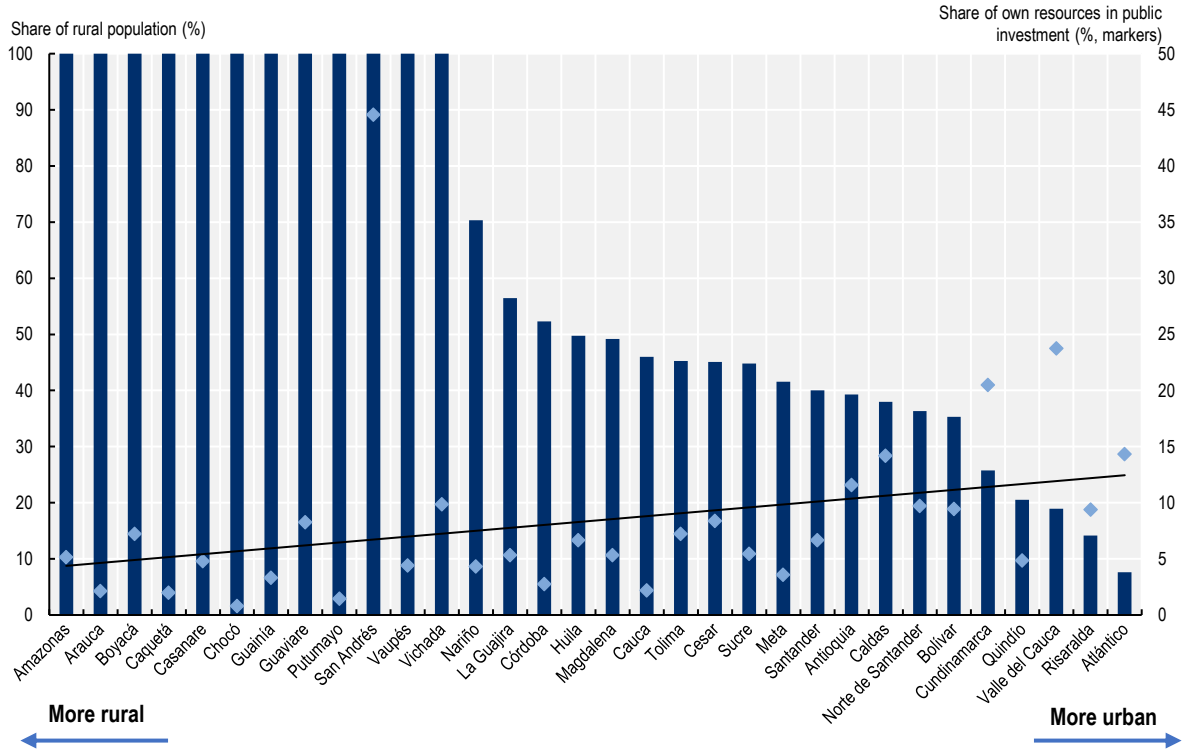
SNGs have limited taxation autonomy and little room for manoeuvre over tax rates and bases as several taxes are earmarked for specific use. Regional tax revenues include receipts from the excise taxes (beer, tobacco, liquor, i.e. 49% of their tax revenues), vehicle tax (14%), register tax, gasoline tax and other taxes. There are around 20 different municipal taxes but about 80% of tax receipts of municipalities come from only 3 of them: industry and commerce tax (ICA, 37% of municipal tax revenues), property tax (Predial, 37%) and a gasoline surtax (around 5%). SNGs cannot create new taxes and some taxes are earmarked

for specific uses and current expenditures defined by law (e.g. a share of property tax to receipts to the autonomous regional corporations).

This lack of capacity to grasp own resources for investment is more present in rural regions (Figure 6.3). This heterogeneity to invest own resources translates to the quality of public services: the financing and outcomes of education and healthcare services currently vary tremendously across Colombian territories (OECD, 2019[11]). Without measures that strengthen subnational government fiscal and human resource capacities, including a mechanism that equalises the differences in tax bases and service needs between subnational governments, the subnational disparities in service outcomes are likely to stay at a high level.

Higher levels of land and business informality in rural municipalities negatively affect the capacity of local governments to increase tax income, which is in fact linked to some of the main bottlenecks identified for rural development: lack of law enforcement and information. As explained in Chapter 5, since 2016, Colombia has engaged in reforms to update and modernise its cadastral and land registries. Efforts have been important but its implementation needs to accelerate in coming years: by 2022, the new cadastral information system (*Catastro Multipropósito*) has been updated for less than 50% of the national territory. This policy is essential not only to reduce social cohesion around land restitution but also to accelerate land formalisation and improve the performance of the municipal property tax.

Figure 6.3. Share of regional government income in public investment, 2020



Source: DNP (2021[10]), *Resultados Medición Desempeño Municipal 2020*, Dirección de Descentralización y Desarrollo Regiona.

In order to improve the co-ordination of investments among different levels of government, Colombia has launched a model of *Pactos Territoriales* (formerly known as *Contratos Plan*) (Law 1955 de 2019), which serves as a co-financing instrument. These pacts are defined jointly by the national government, departments and municipalities to co-ordinate investment programmes in specific areas. *Pactos Territoriales* focus on social and economic investments and institution-building for SNGs. Plans are aimed at sectors in which royalties investments are currently concentrated and where quality needs to be

improved. The *Pactos* were already built on good instruments that had allowed for the articulation of a shared vision for a region's development between national and subnational actors (OECD, 2018[3]).

In addition, equalisation systems were introduced in 2011 through the reform of the General System of Royalties (Law 1530/2012 amended by Law 2056/2020) by introducing a sharing system to all departments based on poverty (measured by the Basic Needs Index) and population. This equalisation system has led to important investments in the country with the aim to benefit more the poorest municipalities, which have allocated 15% of the royalties fund. Royalties have financed around 21 533 projects amounting to around COP 64.4 trillion, almost 42% of the total resources financed for transport and housing projects. Yet, as this fund relies heavily on oil prices, SNG reliance on this fund leads to vulnerabilities in local investment.

Greater use of these co-ordinating and simplified mechanisms for investment together with better information systems (cadastre) would progressively help Colombia to foster more investment from rural municipalities. Moreover, the certification mechanism to allocate greater autonomy to municipalities that are most capable is a good scheme but its applicability can still be improved.[3] As described in the next section, these efforts need to be supported with targeted strategies to boost administrative and financial capacity.

The different mechanisms for vertical and horizontal co-ordination in Colombia provide a good basis to help govern a national rural policy. There are, however, some specific actions that the national government could take to enable an institutional structure that facilitates the policy-making process of that rural policy, from its design to its capacity to be implemented by local governments and civil society.

Implementing a holistic rural policy in Colombia

The government of Colombia can put in place a number of actions to make the most out of the ongoing transformations shaping the implementation of rural policies and leveraging the array of co-ordination mechanisms to ensure an effective policy-making process for national rural policy. These actions would contribute to a design and implementation process of this policy that is legitimate and supported by different actors through a sustainable and collaborative approach. The actions to be undertaken include:

- Establishing a leader to co-ordinate rural policy.
- Differentiating rural policy.
- Reducing complexity and increasing finance.
- Building local capital to expand local capacity.
- Improving local partnership: urban and rural.

Beyond the institutional changes that these actions and governance of rural policy might imply, experiences from other OECD countries that have undertaken a similar process show that political will is the starting building block to establishing a rural national policy.

Establish a leadership role to co-ordinate rural policy

As seen in this review, accelerating rural development in Colombia is crucial to unlocking new growth opportunities for the country and attaining greater local and national well-being that leads to better social cohesion and peace. Yet, rural policy in the country is still associated with agricultural policies. To mobilise all of the potential of rural regions, the Colombian government needs a national rural policy that involves communities and different ministries in the definition of strategic goals for each region and mechanism of policy co-ordination. A clear institutional leadership would be required to design and move forward with the implementation of this policy.

Rural policy must be placed within a specific context to address issues of multi-level governance. In each country, the set of actors and their roles differs according to the specific structure of government and the distribution of responsibilities but some generalisations can be made. Ideally, the national executive and national legislature determine a rural development strategy, which is the broadest statement of how the country hopes to see its rural areas develop. In the case of Colombia, the DNP is the guiding document for rural and national development (Chapter 3).

Rural policy can be free-standing or part of a broader spatial development strategy that considers the entire country. From this strategy, a set of policies are established with various line ministries being charged with carrying out actions in rural areas that reflect their individual competencies and mandates. Policies are still somewhat generic statements of intent but they address specific responsibilities of some national departments and typically have a budget associated with them. Policies in turn lead to programmes that identify discrete activities that are meant to bring the objectives of the policy to fruition.

The appropriate place that rural policy should occupy within the "government" is an open and long-standing debate in OECD countries (Box 6.4). The pros and cons of the different options in Colombia should thus be carefully analysed, as there is no optimal solution. The institution chosen will need to search for synergies and interactions between the different institutions and advocate for a higher presence of rural development in the action of the different ministries.

Box 6.4. External factors determining the place of rural policy within EU governments

The place that rural policy should occupy within the "government" is an open debate. In many OECD countries, the Ministry of Agriculture has traditionally been the lead ministry in charge of rural development. In some cases, this leadership happened naturally as the ministry had the first contact with rural actors. However, there are also external factors that play a determining role in defining the lead ministry.

This is the case of EU member countries, which have to cope with external funding streams and rules that influence the decision of where to locate rural development policies. The two main streams of EU funds are the Common Agricultural Policy (CAP) and the (Regional) Structural Funds. Since rural development funds have emerged from the CAP (the so-called "second pillar") and not from regional funds (although many countries, including Finland, have utilised structural funds for rural development), the straightforward place for rural development policies within European countries' government structures has tended to be the Ministry of Agriculture, in charge of administering CAP funds.

Nevertheless, several countries have sought to break the inertia by creating a new body with expanded scope and explicit jurisdiction over rural development policies or by assigning this jurisdiction to another ministry. An example of the first case is the UK, where the same central authority, DEFRA, embodies wider responsibilities over a broader set of areas, including the environment, food and rural affairs. A number of EU countries have also created a broad-based inter-ministerial committee to deal with rural development. It brings together nine ministries, other public organisations and federations, as well as research centres and private stakeholders.

Source: OECD (2014[13]), *OECD Rural Policy Reviews: Chile 2014*, https://doi.org/10.1787/9789264222892-en.

In Colombia, co-ordination at the national and local levels of rural programmes and policy would benefit from a clear and formal framework. Colombia as a unitary country still very much relies on central government planning, which is not negative or positive in itself, but calls for the recognition that a clear and formal framework for rural policy will help align incentives at the national and local levels of rural programmes. The variety of sectors and agencies shaping rural development needs co-ordination to not only attain economies of scale and synergies among programmes but also define clear development goals in regions.

This institutional architecture and development of this holistic rural policy will not start from zero. It should be based on the IRR and its planning and implementing instruments. This holistic policy should then go beyond PDET municipalities to extend co-ordination across the policies that impact all types of rural areas. Moreover, this institution could ensure the sustainability of rural programmes that are working well. For example, flagship policies in MADR (Contract Farming programme) are temporary and are not seen as government policy. This implies new governments can change the scope or the character of these programmes. The sustainability of programmes that are working well should be ensured to aim for long-term outcomes.

Given the cross-cutting nature of rural development, most OECD countries (89% by 2020) have put in place a national rural policy (OECD, 2020[6]). OECD countries have this national policy defined in a law or in a strategic policy document. The timeframe to renew this policy varies from every year to four or more years.

Many OECD countries have established inter-ministerial committees or councils to design and co-ordinate the implementation of rural-related policies across the government. These co-ordination mechanisms are framed under a single national rural policy that sets the guidelines and gathers the vision of local communities. Finland offers a long tradition of policy coherence through a National Rural Programme (Box 6.5).

Box 6.5. The National Rural Policy Programme in Finland

The National Rural Policy Programme is the main instrument to provide coherence to the different sectoral policies oriented towards rural areas in Finland. It is drawn up by the Rural Policy Committee, an institution that brings together nine ministries, other public organisations and federations, as well as research centres and private stakeholders. The National Rural Policy Programme includes strategic guidelines and specific practical measures for different sectors and for different entities of the government.

The programme is divided into two parts, which have contributed to the allocation of responsibilities, information sharing and linking of the planning and implementation stages:

1. The Plan of Action of the Rural Policy Committee and the Special Programme or the Report of the Government. The first contains proposals to be undertaken by a wide number of actors.
2. The separate Special Rural Policy Programme is drawn up on the basis of the plan of action and only contains decisions and proposals within the competency of the government. For example, the Fourth Rural Policy Programme (2005-08) entitled “Viable Countryside – Our Joint Responsibility” included 133 proposals. Based on this, a Special Rural Policy Programme was prepared consisting of 52 government decisions.

The programme is revised approximately every four years and contains both a strategic perspective and concrete proposals with explicit references to those responsible for implementing them. The Rural Policy Committee carries forward the proposals of the programme through negotiations, projects, theme group work and by influencing various processes.

These documents have been central to providing rural policy a policy framework:

- *Monitoring*: Ministries need to report twice a year the actions undertaken in line with the proposals/decisions contained in the Rural Policy Programme/Special Programme.
- *Continuation*: The strategies set by these programmes are established over a time frame of more than two decades, which has contributed to providing a long-term vision of rural policy.
- *Allocation of responsibilities*: The distinction of two programmes, one within the government domain (Special Rural Policy Programme) and another broader, where a number of other organisations are involved, contributes to the allocation of responsibilities, decision-making, information sharing and linking the planning and implementation stages.

There have been more than seven National Rural Policy Programmes: 1991-96, 1996-2000, 2001-04, 2005-08, 2009-13, 2013-17 and 2018-22.

Lessons learnt from the process are: i) the involvement of civil society and academia in the preparation, as providers of local and technical knowledge, reducing a critical knowledge gap that many central governments have in targeting the priorities of rural policy; ii) the ownership of the programme by the different governmental and non-governmental actors involved, resulting from a long process of multi-arena negotiation and aligning the actions of all key stakeholders; iii) clarity in the roles and responsibilities allocated within the government; and iv) the annual or biannual monitoring and evaluation process on how proposals/decisions have been put forward.

Source: OECD (2020[6]), *Rural Well-being: Geography of Opportunities*, https://dx.doi.org/10.1787/d25cef80-en.

Chile is one of the countries having most recently experienced the forming of a national rural policy. In this case, the leadership of moving forward was initially taken by the Ministry of Agriculture, which has the support of the national government to co-ordinate other ministries and involve citizens to identify the objectives and design the governing structure of that policy. Some other countries, instead, have developed broader regional development policies that aim to govern both urban and rural development with a regional approach under a single strategy. This is the case of Poland with the *National Strategy for Regional Development 2010-2020: Regions, Cities, Rural Areas (NSRF)*.

Box 6.6. National rural policy of Chile

After a long focus on urban development, Chile launched in 2020 the National Rural Development Policy (PNDR) to provide a framework to co-ordinate actors and variables that affect the development of rural areas, while assessing the potential they have for local, regional and national development.

The PNDR promotes a paradigm shift from a traditional vision of agriculture and subsidies towards a diversity of rural economic activities. In addition to addressing the gaps and risks in these territories, it places special emphasis on the current and future rural opportunities to unlock new growth opportunities for the country. These future opportunities are based on:

- The diversity of productive activities (agriculture, fishing, tourism, crafts, energy and mining, among others).

- Natural diversity (biodiversity, wild areas and landscapes, among others).
- Cultural diversity (gastronomy, trades, interculturality, festivals, traditions and architecture, among others).

The first draft of this policy was built with the involvement of 14 ministries, citizens, local governments and academia. In April 2020, the government approved the document and its legality, the first Chilean state policy of its kind.

Implementation

At the national level, the responsibility for its implementation falls on the Inter-ministerial Commission for City, Housing and Territory (COMICIVYT), created in 2015 and made up of the Ministries of Housing and Urbanism, and of the Interior and Public Security; the General Secretariat of the Presidency; the Ministries of the Economy, Development and Tourism; of Social Development and Family; of Public Works; of Agriculture; of Mining; Transport and Telecommunications; of National Assets; of Energy and the Environment. The Ministries of Health and Education are exceptionally added to this committee for the purposes of the PNDR.

The Executive Secretariat of the PNDR was established in October 2018 within the Office o of Agricultural Studies and Policies (Odepa) of the Ministry of Agriculture, which must provide technical and administrative support for the co-ordination of its implementation.

To ensure transversality and continuity, a National Rural Development Advisory Council was formed with a consultative nature and the participation of actors from the public, private and civil society sectors.

To monitor the progress of the objective and guidelines of this policy, at the end of 2020, a System of Rural Life Quality Indicators was established to carry out an evaluation of its progress.

Source: Government of Chile (2020[14]), *National Policy of Rural Development*, https://www.masvidarural.gob.cl/wp-content/uploads/2021/10/Politica-Nacional-de-Desarrollo-Rural-PDF.pdf.

Options for appointing a leader for rural policy in Colombia

Based on experiences in other OECD countries, Colombia seems to have three institutional possibilities to take the lead on rural development:

1. *The Ministry of Agriculture and Rural Development*: MADS has the advantage of having a long-standing presence and leadership in rural areas, with well-established agencies and connections with rural firms and academia. It also has recognition and a kind of leadership over rural areas as it has been in charge of historically the most relevant sector in rural economy, agriculture, and the fact that rural development is highly identified with agriculture. However, this same predominance of agriculture within its political culture and vision is a drawback for off-farm actors and policies in rural areas. Moreover, the office of the Deputy-Minister on rural development created to deal with a broader and multi-sectoral focus of rurality seems trapped in the traditional sectoral-oriented approach, for which the budget allocation and capacities do not help.
2. *Creating a new rural development ministry*: This option has the advantage that the new institution could be specially designed to cover the area of rural development in a comprehensive and integrated way, beyond the sectoral lens. It could assume the competency of different departments or ministries, as was the case with DEFRA in the UK. However, it increases autocracy and could make more difficult inter-institutional arrangements and co-ordination in the public arena in which there are already many institutions.
3. *An inter-ministerial committee of rural development*: It would have the advantage of being able to gather a broad set of actors, including the relevant ministries, public agencies and representatives

from the territories and regions. It could also have a flexible and adaptable organisation, working in different commissions, with different actors associated with different areas of work. However, as happened with other committees and council in Colombia, the experience shows that it is very difficult to give political relevance, functionality and stability to inter-ministerial committees. The existing sectoral advisory and co-ordination bodies have proven to have a low capacity for compliance and ensuring inter-ministerial decisions fit into the allocated budget.

Within the OECD, most countries (85% or 29 out of 34 surveyed countries) have established an inter-ministerial committee in the form of advisory councils, platforms, networks or presidential committees to overcome a sectoral bias and siloed policy making in rural policy development. For example, in Poland, this task is undertaken by the Council of Ministers, which is responsible for key national development strategies and their strategic management. The prime minister directly supervises the national development strategy, including regional policy and rural development, and ensures co-ordination between different territorial measures.

Experiences of other countries, like Chile with the National Rural Development Advisory Council or Finland with the Rural Policy Committee, can be a good example of this type of approach. The committee in Finland has more than 20 years' experience and has proven successful results. Chile's experience is more recent and can indeed provide lessons on an operational comprehensive process. Both initiatives claimed to have been successful, thanks, among other things, to clear political support to the institution.

For this option, Colombia could either create a new inter-ministerial committee or strengthen/upgrade under presidential mandate an existing one, e.g. the Superior Council of the Rural Land Management or the National Council for Agrarian Reform and Peasant Rural Development.

The creation of this committee could also support MADR's capacity to focus its efforts on agricultural development, which is where it has the greatest know-how, while delegating the co-ordination of rural policy.

What makes a rural champion

The institution chosen would need to upgrade the concept of rural development in each of the ministries and agencies and down to the territories. Evidence across OECD countries provides some valuable lessons to be considered in the new institutional setting for a successful implementation.

- Win strong institutional support through authority delivered by the President to deal, manage and co-ordinate rural policy; report directly to the President and/or to a relevant parliamentary committee, as a sign of the strong relevance and support of rural development and the implementation of the IRR.
- Have its own financial capacity. A cross-sectoral budget allocated in each ministry to attain the objectives of rural policy or a special fund from the royalties system is needed to provide seed funding for inter-sectoral projects and ensure the long-term implementation of rural policy. The IRR already has a dedicated mechanism, the Peace Fund, which should be strengthened to accelerate its implementation. This fund can be complemented with other resources dedicated to the other rural municipalises that are not PDETs.
- Make a clear distinction between rural from agriculture, with communication mechanisms (for the general public and local governments) that state that rural challenges extend beyond those of the agricultural sector, and identify the way to re-engage the two in a positive, mutually supportive relationship.
- Manage or oversee existing planning instruments In Colombia with a territorial approach for rural areas, mainly PDETs.
- Ability to co-ordinate the various sectoral ministries with formal meetings that have a clear frequency and binding participation.

- Set clear guidelines to broaden the scope of support for rural concerns and rural communities to a "whole-of-government" perspective.
- Be in a position to ensure the integration of urban and rural policies and to address urban-rural linkages.
- Collaborate with DNP to evaluate and monitor the implementation of rural policy. It could begin by monitoring the development plans to be conducted under the IRR of the peace agreement.

Nominating a rural champion is necessary but not enough. Overcoming sectoral approaches in favour of an integrated policy approach to rural development is not an easy task. It is important to recognise that sectoral ministries will always be responsible for the bulk of delivering policies that affect rural firms and households. Major ministries like Transport, Housing and Territory, Mining, Health and Education, are unlikely to be greatly influenced by another department or a monitoring committee. The most realistic action is then to trigger their commitment with budget incentives for certain common projects and provide a mechanism for them to embed a rural lens in their policies on rural territories.

Differentiate rural policy and reduce complexity

Towards a differentiated rural policy

Policy design is largely seen in terms of efforts to implement policies in ways that are more likely to achieve their intended goals. Recognising that policies have to be designed in a way that connects ambitions with outcomes is the first step to better policy design. Beyond this first step, Ingrams et al. () identify the possibility of "design-reality gaps", where policy makers' assumptions about the nature of a problem and effective ways to address it are fundamentally incorrect.

When policy is based on incorrect assumptions, it is unlikely to address real needs, nor will it achieve policy-maker goals. For example, although rural regions become more integrated into the larger economy and society over time, they remain significantly different and a duality continues to exist. Governance systems and processes are complicated in rural areas because: roles are not as well defined, reciprocity is more important, resources and capacities are more limited and fluctuations in the natural environment (droughts, floods etc.) have considerable impacts. In addition, the economy in low-density rural regions is functionally different from that of urban places, because: it is more reliant on resource-based activities, more dependent on exports and imports, and more specialised (OECD, 2016[5]). These differences can contribute to implementation gaps between rural and urban regions if they are not recognised in the policy design process.

A building block for Colombian rural policy includes clarifying the territorial level to implement rural policies with a single mechanism to identify their needs and potential. The design of policies starts from the construction of the PND, which, through the regional pacts, rightly differentiates policies per type of macro-region (groups of regions). In addition, Colombia has other mechanisms to identify and link local interests from the bottom to the top, like PDETs, platforms for policy discussion at the subnational level such as Regional Commissions for Competitiveness and Innovation or even information tools like the Kit for Territorial Planning (KPT) to articulate national and local plans. Adopting a clear and systematic approach to identify needs across the types of rural regions could help define the main policy priorities in each of them. The functional approach of subnational regions used in PDETs can serve as the basis to differentiate rural policy in the country and, in turn, adjust the system of regional pacts in the National Development Plan to address the main priorities across different types of rural regions.

These priorities for rural development have been already over-diagnosed in former policy documents and in this review (infrastructure, land formality, education, etc.). Therefore, identifying which can be more urgent for each type of region should entail a discussion with regional representartives at the beginning of the process, without standing in the way of some reorganisation. Some examples of the main challenges and opportunities identified across the different types of OECD rural regions are outlined in Table 6.2.

Table 6.2. Challenges and opportunities by type of rural region across the OECD

Type of region	Challenges	Opportunities
Rural inside a functional urban area (FUA)	• Loss of control over the future • Activities concentrate in the urban core • Managing land value pressures • Matching of skills	• More stable future • Potential to capture urban benefits while avoiding the drawbacks
Rural outside, but in close proximity to an FUA	• Conflicts between new residents and locals • Avoiding sprawl • Competition for land and landscape preservation	• Potential to attract high-income households seeking • Better quality of life • Relatively easy access to advanced services and urban culture • Good access to transport
Rural remote	• Highly specialised economies subject to booms and busts • Limited connectivity and large distances between settlements • High per capita costs of services	• Absolute advantage in the production of natural resources-based outputs • Attractive for firms that do not need access to an urban area on a frequent basis • Can offer unique environments that can be attractive to firms and individuals

Source: OECD (2020[6]), *Rural Well-being: Geography of Opportunities*, https://dx.doi.org/10.1787/d25cef80-en.

In Colombia, the DNP has vast experience and plays an important role in co-ordination and policy design. With the framework of the inter-ministerial body on rural development, the DNP together with MADS could take the lead in designing and structuring the holistic national rural policy that takes into account different characteristics of rural regions.

Across the OECD, the competent bodies for designing national rural policy are distributed differently across countries. This body tends to be the same in charge of rural development and often follows a concerted effort. For example, in Chile, the National Rural Development Policy is set by the Ministry of Agriculture, while in Sweden, the body in charge is the Swedish Agency for Economic and Regional Growth.

Better attention to policy design involves ensuring that the impetus for policy that starts from political interest is connected to an actual policy problem, not an imagined one. It then follows that reality informs policy goals, which in turn should assure that the specific policies and intervention tools also are based on an actual problem and provide support that can address these problems.

Reduce complexity to improve implementation

Because the national government has only limited information on the needs of local people it is unable to directly identify potential beneficiaries (Chapter 3). And even if rural inhabitants are accessing a particular programme, it can be difficult for them to identify other forms of support that could also benefit them.

Under the current agricultural policy delivery, the decision to implement a project involves the locality first deciding to participate in the programme and then the higher level of government choosing to accept that application. In an ideal situation, the local government or local organisation determines whether to participate in a specific programme by evaluating its potential contribution to the goals of the community as set out in a locally determined vision of how that place would like to see its socio-economic evolution

taking place. In this sense, the local vision conceptually corresponds to the national rural development strategy but is specific to that place and may not be clearly aligned with the national strategy. A second difference is that national strategies tend to be aspirational in nature because they are dealing with the entire country, while local visions reflect the specific conditions and opportunities of a single small place.

A holistic rural policy is made up of different sectoral policies which in turn are designed by different ministries that implement in different sequences and through different operators or agencies. It requires increasing co-ordination that comes at a cost both in terms of time and money, and potentially in the reduced effectiveness of specific policies if co-ordination constrains their function to make them less useful in their intended task. Moreover, co-ordination can be difficult if some participants have a weak administrative capacity and cannot fully participate in the co-ordination discussion, but still play an essential role in policy delivery, as is often the case in rural areas.

While policies impacting the entire rural areas like road infrastructure or broadband Internet can be agreed upon at a more aggregated level (municipality or region), other policies tackling directly specific types of population require clear channels to get to the right beneficiaries.

Rural governments and inhabitants often face a multiplicity of programmes which are not all known and require selection criteria. For example, different agencies attached to MADR have subnational branches that implement and adapt national projects to local needs. They include the Agency for Rural Development, the Colombian Agricultural Research Corporation (Agrosavia), the Unit of Land Restitution and the ANT along with financial institutions. They add up to other agencies with subnational branches that conduct programmes in rural regions, like the Agency for Reincorporation and Normalization (ARN) which operates mainly in those municipalities most in need that are the focus of national interventions (PEDT municipalities).

In essence, it takes the “whole-of-government” approach that is advocated to improve co-ordination at the national level and moves it down to the local level. This devolution could have several benefits:

- First, instead of national leaders deciding how programmes should co-ordinate in abstract, each locality, with support from a team of government agents, determines how a specific subset of programmes can provide effective support in a co-ordinated way.
- Second, since local people identify support mechanisms they value, they are more likely to utilise the assistance to accomplish long-term outcomes, which should improve both local well-being and programme effectiveness.
- Finally, the presence of government officials at the local level could help reduce corruption and cronyism and provide a mechanism for process evaluation.

Colombia could implement a limited number of offices to concentrate projects by type in each region, for example one office to gather productive projects (e.g. technical assistance) and the other focused on social projects (e.g. education insertion or guidance with healthcare programmes). This then implies merging all regional offices of affiliated MADR agencies with operators and offices of other ministries into a handful of offices able to propose both farm and off-farm programmes, as well as taking more active roles in reaching beneficiaries. The country can also follow the example of single offices for agricultural programmes in the United States (US).

Box 6.7. Unifying the delivery of government support to US farms

All OECD countries provide support to their farm sector but forms of support vary and the OECD endorses non-distorting support that does not directly affect farm output decisions, such as technical assistance and investments in infrastructure, instead of more distorting price supports or other direct transfers to producers (OECD, 2021[15]). Delivering non-distorting support typically requires a larger

investment by national governments in local offices and personnel who regularly interact with farmers than is the case for price supports or import tariffs. In the US, the majority of programme support to farmers is delivered through the United States Department of Agriculture (USDA) Farm Service Agency (FSA), although Co-operative Extension also works directly with farm households to improve their technical skills and provide them with information that can support decision-making.

The FSA operates offices in more than 2 000 of the 3 481 US counties. Counties with a significant number of farms have local offices, while farms in other counties are served by an adjoining county. Staff are USDA employees and provide a "one-stop" office for farmers to enrol in a wide range of programmes, including: crop insurance, conservation programmes, subsidised credit programmes for low-income and beginning farms, and various farm commodity programmes. The current form of the agency was created in 1994 when USDA reorganised its delivery system to consolidate multiple county offices, each with its specific type of programme responsibility, into a single office. Each county office is required to have an elected advisory board, the FSA county committee, that is selected by farmers using that county office. The committee is involved in determining which programmes are offered in the county, evaluating employees and ensuring that services are delivered fairly to all eligible farms.

Source: OECD (2021[15]), *Mining Regions and Cities Case of Västerbotten and Norrbotten, Sweden*, https://dx.doi.org/10.1787/802087e2-en.

Improve monitoring of programmes to focus on delivering outcomes for beneficiaries, rather than on coverage

Monitoring the right outcome of projects is a crucial aspect of policy design and implementation. In Colombia, the monitoring process of implementation of National Development Plans (PND) is supported by an array of indicators, which are agreed upon by ministries and the DNP, based on the budget availability of each sector to guarantee its compliance. The process is conducted through the National Management and Results Assessment System (SINERGIA), which aims to generate quality information for decision-making to improve the formulation and implementation of PND policies effectiveness, specifically by monitoring the progress of national development and major government programmes, as well as the evaluation of policies contained in the PND and its complementary strategies.

This system is used by ministries to follow and monitor the progress in achieving strategic objectives. This system monitors the achievement of the objectives based on the compliance in the execution of programmes. For example, in the case of the leading institution for rural development, MADR, the programme of supporting producers through local public purchases aimed to benefit 3 273 producers in 2019-22 (by 2021, it had reached 2 342, a compliance rate of 71.6%) (Ministerio de Agricultura y Desarrollo Rural, 2021[16])The level of compliance of this programme is added to that of the other eight programmes to generate the average level of compliance of the first objective of the second strategic pillar of the Agricultural Strategy, "Strengthen the articulation of the agricultural chains to improve competitiveness".

This type of monitoring and evaluation mechanism focuses only on achieving goals in terms of coverage and budget execution, without incentivising actions or modifications that help ensure the ultimate goal of the policy. While this monitoring system is good at incentivising the execution of programmes through output indicators, it does not include measures to track the outcomes of programmes and structural changes. Thus, the system ends up providing an incentive to increase the coverage of programmes, e.g. include producers in projects or create associations, with little space to reflect on the efficiency of the action or modifications to better attain the final policy outcome, e.g. improve the income of producers or sales of producers' associations. To address this issue, the government should include monitoring indicators that measure the outcome of the programmes rather than outputs. To this end, it can create a

hierarchy, differentiating between output (the intermediate goal) and outcome (the long-term goal) indicators.

Moreover, there are some institutional bottlenecks that prevent an effective long-term follow-up of the programme and the corresponding monitoring within the current leading institution of rural policy in Colombia. The 2017 MADR Manual for the Administration of Public Goods, the internal guidelines to manage the public goods and services delivered, does prevent the ministry from monitoring the output of a programme after its fiscal year.

Furthermore, the restriction of a multiyear budget in programmatic implementation reduces the capacity to implement long-term rural-related programmes. The budget allocated to implement many programmes has to be executed during the fiscal year, which oftentimes leads to an accelerated implementation without much planning capacity and hampers the follow-up of programmes that require multiple years to attain sustainable outcomes. Implementing programmes in rural areas requires more time than in cities. Different issues tend to delay the implementation of a rural programme in Colombia including finding a suitable operator that conducts the programme, accessing the right information, reaching the beneficiaries and dealing with climate or violent events. The government can recognise these issues by promoting projects with multiyear budgets that include intermediate goals.

The government has progressed in improving the system. For example, by reducing the number of indicators linked to the PND's objectives from 996 in the 2014-18 plan to 672 in the 2018-22 plan. Yet, there is still scope for addressing some challenges: i) become more efficient (fewer indicators); ii) strengthen territorial monitoring, in order to visualise the progress of results and product indicators of the territory and regions established in the PND; and iii) increase citizen use and position the system as a transparency tool (Government of Colombia, 2021[17]). Furthermore, cross-cutting policies like the rural development policy would also benefit from transversal indicators that help track co-ordinated actions among ministries

Strengthen administrative and financial government capacity

There are clear reasons to believe that effective rural development has a high component of the bottom-up process that must be led by local interests with support and guidance from the national government. Without strong and co-operative local institutions, including firms, civil society and the local religious institution (as pilar in many municipalities), there are no partners for government to work with. Only trusted local leaders can commit to a longer-term development vision that can connect to national government strategies.

Weak municipal governments also hamper implementation. In Colombia, many rural municipalities suffer from inadequate tax revenue, a shortage of qualified staff, complex requirements created by national and district governments and a rapidly changing policy and programme environment, and struggle with policy co-ordination either of national programmes or international aid.

Building local capacity

In general, the competency of subnational authorities in Colombia has increased as the country develops and information and control systems operate (OECD, 2018[3]). However, some subnational governments continue to be weak partners in policy implementation, hampering the sustainability of programmes and undermining rural well-being.

Colombia's current approach to trigger collaboration and implementation of joint projects through Territorial Pacts or OCADs can help build local capacity in the process. It might be long and require a monitoring mechanism in place but incrementally involving local governments in more complex projects is a way to transfer knowledge from the national level. Other OECD countries like Canada experienced a similar approach to resolving local capacity with small funds for quick projects. The results of the policy were

positive, yet it required significant time to be effective and consistent attention by national organisations Box 6.8.

The EU LEADER programmes followed a similar evolution. In the early stages, the focus was on encouraging collaboration among local groups by providing funding for simple projects that provided collective benefits. As trust and competency increased the set of supported activities became more complex and more focused on economic improvement. This included support for small businesses and local infrastructure.

Box 6.8. *Pacte rurale* in Canada: Triggering inter-municipal co-operation

After the province of Quebec in Canada had reorganised sub-provincial government to reduce the number of counties, it placed rural communities with long traditions of competition among each other in the same county. Because local elected officials and local population were unwilling to collaborate, efforts too improve economic development stalled.

In response, the provincial government created the *pacte rurale* which provided funds for simple projects that improved local well-being and had a small economic development effect. These funds could only be accessed if multiple communities filed a joint application and agreed to jointly implement the project. For example, funds could be provided for a joint tourism marketing brochure, for a youth sports facility that served several towns or for a trail that connected several places. Initial participation was limited but as local leaders saw the benefits for participating communities, interest rose.

The *pacte rurale* was in place for about 10 years under the administration of multiple governments. Because it was simple to understand and easy to apply, it created interest in communities. It also led to tangible outcomes that were visible to local citizens and this increased the incentive for leaders to continue to co-operate. As trust expanded, it became possible to introduce more complex projects that had a stronger economic development focus, and even if the project provided greater benefits to some groups or places than others, it was still implemented because there was an understanding that subsequent projects would benefit others.

Subnational government capacity to provide delegated and devolved services also depends on the skills and quality of their administrative and service professionals. There have been a number of efforts to train more local government officials and civil servants with a place-based approach. For example, the Higher School of Public Administration (*Escuela Superior de Administración Pública de Colombia*, ESAP), was redesigned with the objective of “approaching the territories”, which involved a special assistance fund being established to train municipal councillors and capacity-building programmes to support smaller governments in a variety of management skills. The DNP also has capacity-building programmes for mayors that go from the formulation of municipal plans to their closure (e.g. Strategy for New Territorial Leader or KiTerritorial).

Moreover, as mentioned in the previous section, measures of subnational performance can incentivise local efforts to improve governance. The National Planning Department (DNP) regularly measures the performance of municipalities and departments in service provision and administrative capacities with instruments like the MDM (*Medición de Desempeño Municipal*) system, which measures management quality and results and is published on line. This system provides a good set of benchmarking that could be further disseminated with civil society (media and universities) to foster accountability in some of the regions. To this end, the public still needs access to better explanations/information and the construction of indices needs to be clarified.

In rural municipalities, a shortage of skilled workforce is a remaining bottleneck for the design and implementation of investment projects. It adds to high staff turnover and low salaries, which limits the capacity of municipalities to evolve in parallel with the devolution of competencies. Some of these challenges, especially the shortage of skilled workers, are structural to rural communities, which could be reversed by addressing enabling factors for development (education, peace) and thus increasing the attractiveness of the area; again, rural policy is crucial to reducing this issue. In the meantime, strategies such as better supporting departments in municipal capacity building and technical support to keep a constant exchange of good practices as well as simplifying capacity-building tools used to train newcomers can help maintain a skilled staff. Platforms like the Federation of Colombian Municipalities are also called to take on an active role in advisory boards and the exchange of good practices in policy making.

Local capacity can also be enhanced by inter-municipal agencies, advisory boards made up of different local interests or the creation of partnerships with educational institutions. Some OECD examples in this regard include:

- The inter-municipal support agency in Finland delegates complex municipal tasks to a third entity. This can be a solution for some tasks, easing the burden ad complementing the capacity-building actions from the DNP, but requires funding from the municipal budget or the national government (Box 6.9).
- Other regions like Värmland in Sweden have partnered with a university, Karlstad University, to utilise the capacity of academia to develop the local development plan. This partnership also led to the creation of ten new professorships in the university that are in line with the regional strategy.

Box 6.9. Inter-municipal support agency for municipal capacity, Finland

At the beginning of the 21st century, smaller municipalities in North Karelia decided to set up a joint development agency to address some pressing challenges in the local market, including scarcity of resources, lack of special knowledge to handle the business advisory services and competition between neighbouring municipalities.

All municipalities around the capital of the region (Joensuu) negotiated at the City Board level the creation of a functional, regional-level body, Josek.

The partnership has not been without issues: in 2018, two municipalities decided to reduce the services acquired from Josek and developed in-house advisory services for businesses (keeping access to project development and facilitation services). This instigated a reform within the development agency and the creation of Business Joensuu.

The new Business Joensuu integrates common strategic municipal tasks under a single institution and has the resources to hire skilled staff and find synergies among municipal strategies through a more efficient exchange of information (e.g. labour force skills). Urban and rural municipalities buy services from the agency according to a service agreement.

Business Joensuu provides services to start-ups, municipal governments, foreign investors interested in the region and internationalisation support to local companies. In addition, it produces an operating environment for different industries by creating the best conditions for companies to operate in the region.

The company is co-governed by a board of directors that is selected by the following institutions:

- The City Council of Joensuu.
- The University of Eastern Finland.
- Joensuu University Support Foundation.

- The North Karelia Educational Council Group Riveria.

Given its capacity to balance interests among partners, this agency can offer a source of inspiration for similar instruments in Colombia as it helps build trust among municipal actors (governments and private sector) and make them realise they gain more from co-operating in business development than from competing against each other (OECD, 2021[15]).

Overall, the company has managed 25 programmes focused on different sectors including export capacity in the region (Export Growth), the bioeconomy sector (Digital Forest Vitality), business digitalisation (Joensuu Smart city, digital training) and entrepreneurship (women's entrepreneurship). It is also involved in two active EU programmes to support the mining sector (MIREU and REMIX).

The services are typically one-to-three-year-long customer-oriented development projects. They are initiated by designated industry-responsible experts who are responsible for promoting the business environment of their business' specialities.

Source: OECD (2021[15]), *Mining Regions and Cities Case of Västerbotten and Norrbotten, Sweden*, https://dx.doi.org/10.1787/802087e2-en.

Chapter 4 also recommends some strategies to attract teachers and healthcare professionals to rural municipalities. In this vein, the OECD (2019[11]) has also recommended Colombia include financial incentives for medical and teaching staff to work in the most remote regions along with geographically targeting students and the location of education institutes that train medical and teaching professionals in order to contribute to the availability of high-quality workforce in regions.

Building fiscal capacities

The capacity of Colombian subnational governments to raise own-source revenues and enhance revenue autonomy can be strengthened. The OECD (2016[5]) proposes a number of alternatives that can be taken into account to accelerate such fiscal capacity (some of these policy actions have already been discussed in Chapter 5), including:

- Continuing the efforts to update and modernise the cadastral and land registries in order to improve the performance of the municipal property tax. These efforts need sound complementary building capacity actions to help the subnational level fully embrace this instrument and translate it into an efficient propriety tax collection. The DNP is already working in this direction (e.g. through workshops).
- Reducing the number of earmarked taxes and allowing instruments such as congestion charges or tolls. While the first option could imply a greater legislative effort, there is still scope to increase infrastructure funding streams by raising user charges.
- Promoting more flexibility in terms of user tariffs and local fees. This could take the form of flexibility in fees from the provision of local public services (e.g. public transport).

The certification system to measure administrative capabilities could be further used as a reward system focused on rural regions that improve tax efforts, by, for example, increasing transfers, co-financing or other central government incentives for regions that improve fiscal management. This can eventually be territorialised to reproduce measures at the municipal level inside each region.

Finally, for those rural regions and municipalities with better administrative capacities, borrowing could be further used as a financing mechanism within the limits of current fiscal rules. While ensuring fiscal discipline, new options to finance investments could also be explored, in particular for local governments with higher capacities and with assistance to improve their use and management of loans (OECD, 2019[11]).

These measures along with the recent enhanced co-fining mechanisms – *Pactos Territorial* – and the transfer system (General System of Royalties) should works alongside efforts on administrative capacity (greater inter-governmental collaboration in joint projects and civil servant professionalisation) to gradually set the path towards stronger local capacity.

Build community capital to expand local capacity and accountability

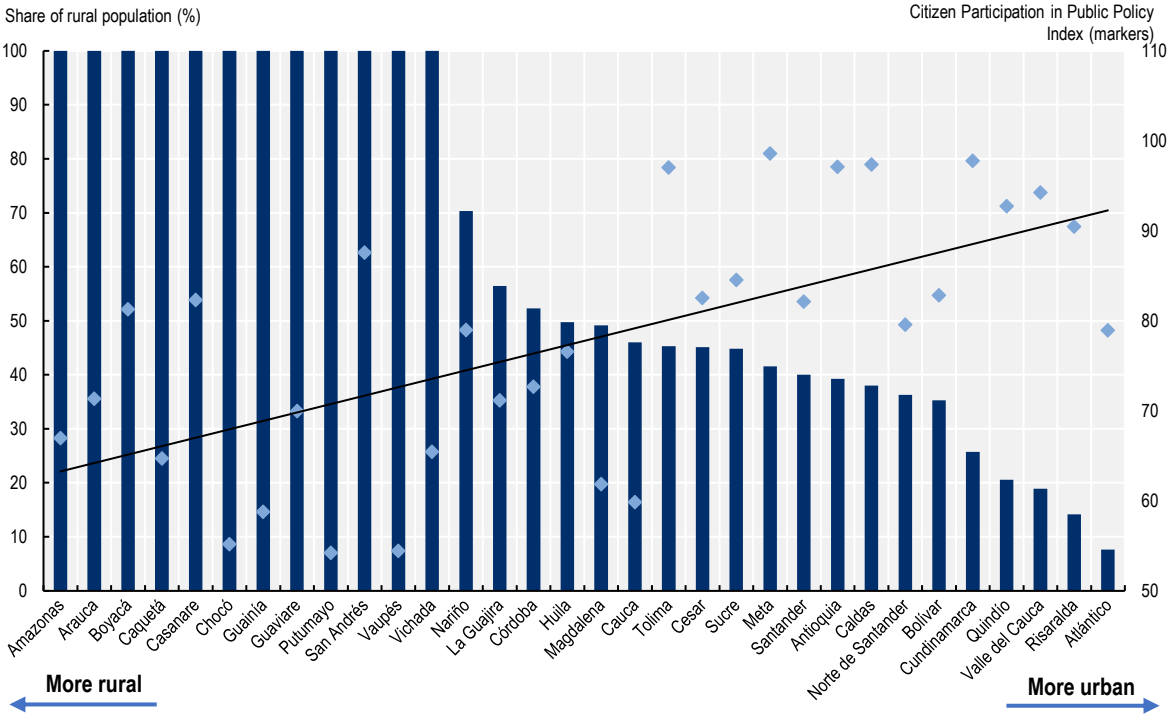
The rural policy in Colombia requires a social fabric in place that can make the most of the new opportunities in rural economies and work jointly with the government to attain common development goals. Rural development policy requires more than co-ordinated government action to make it effective. Collectively in OECD countries, private sector and civil society can play a far larger role in shaping the economy and society than that of all levels of government. And crucially, while the government can have some influence on their behaviour, it is a weak because the incentives driving these institutions are considerably different from those of the government.

The mechanisms for improving co-ordination between investor-owned firms and the government are well understood even though they are only partially effective. Firms in the formal economy are subject to government regulations and can also be influenced by taxes and subsidies. On the other hand, firms can lobby the government, either individually or through organisations, and negotiate a symbiotic relationship. This is a relatively straightforward process because market-focused firms have a common objective function that both they and the government understand.

In contrast, the elements of civil society are both numerous and highly diverse and many are specific to a single municipality. In rural areas, civil society plays an especially large role in shaping both economic and social forces. This reflects a much smaller role played by a resource-constrained public sector and a greater reliance on traditional social norms due to lower levels of connectivity that make people, firms and organisations more dependent on each other. Civil society includes internal actors, like religious organisations or farmers' associations, and external players, like NGOs or multilateral development organisations, which all are important actors for rural development in the country. All these players require co-ordination, with alignment for local interests.

A key challenge for rural development is the ability of local actors to effectively engage with national policy to bring about change. In Colombia, this can be exemplified by the low voter turnout in Colombia (53% in 2019) in comparison to the OECD average (69%). Furthermore, regions with a higher degree of rurality face a lower level of citizen participation in policy making (Figure 6.4). While this can be explained by the reduced ability of local governments to promote mechanisms to involve citizens, this also reveals a lack of social incentive and capacity to call for that involvement. Rural areas that are characterised by relatively higher levels of poverty, social exclusion and weak connection to markets and information are particularly challenging partners in rural development, since they lack the capacity to engage with the local and national government as well as to promote accountability. For these communities, a necessary first step to make them effective contributors to local economic development efforts is to build their community capital.

Figure 6.4. Citizen Participation in Public Policy Index, degree of rurality in Colombian regions, 2020



Source: DNP (2021[10]), *Resultados Medición Desempeño Municipal 2020*, Dirección de Descentralización y Desarrollo Regiona.

Different authors describe community capital as the set of resources in a community that can be invested in collective action (Emery, Gutierrez-Montes and Fernandez-Baca, 2016[18]). With a broad set of resources, a community can be an effective participant in various types of development investments. Conversely, communities with low levels of capital are not only unable to contribute much to development efforts but they also have limited capacity to make use of external investments. Three of the forms of capital – civic capital, social capital and trust – are of particular interest in improving the implementation of rural policy in Colombia. For government systems that seek to devolve much of the implementation of rural development policy to the local level, the presence of strong rural partners is essential.

Table 6.3. Dimension of community capitals

Property	Description
Financial capital	Assets, wealth, income and financial resources, including ability to fundraise and/or borrow on favourable terms
Human capital	Skills, knowledge, expertise, experience, credentials and accreditations
Political capital	Connections to key political decision makers or administrators; legitimacy in the eyes of the governed
Civic capital	Levels of citizen commitment to and engagement with local institutions and organisations
Natural and environmental capital	Soil, water, forest, animal, landscape and nature-aesthetic resources; biodiversity and ecosystem resilience
Built capital	Infrastructure, including services, technologies, amenities; housing stocks; commercial and industrial properties
Social capital	Networks of reciprocity, help, obligation, information-gathering or influence, within and beyond community or region
Trust	Interpersonal trust as a basis of collective action; institutional trust as the basis of multi-scalar co-ordination

Source: Emery, M., I. Gutierrez-Montes and E. Fernandez-Baca (eds.) (2016[18]), *Sustainable Rural Development*, https://doi.org/10.4324/9781315540504.

Civic capital builds a vital link between people and formal institutions, such as government and civil society. Civic capital together with trust allows people to work with each other and to participate in collective action without fear that they will be taken advantage of by others. Social capital covers the set of formal and informal institutions that make up civil society. In much of rural Colombia, people may have strong ties to individuals within their particular group, small community or neighbourhood, but have lower interaction with other groups.

Factors that weaken relationships with others can include: the effects of high levels of political, social or ethnic exclusion; criminal violence; limited economic or other interactions with people outside the group; and geographic isolation. The existence of a high level of informality in the economy can contribute to weak levels of trust and civic capital because people recognise they can be easily exploited and have no recourse to the formal institutions of society to protect them. In fact, Colombians find it hard to regain trust in the state and its institutions. As mentioned in Chapter 2, low trust in public institutions may also deter whistle-blowers from reporting corruption cases: 58% of Colombians consider it unlikely that complaints generate any consequences, while 78% indicate that they would suffer retaliation if they make a report (OECD, 2022[1]).

Without strong community capital, it is difficult to introduce change into a community, especially if members of that community must participate in the change to make it effective. In the context of the principal-agent problem, where the community is the agent and the national government is the principal, it may not matter if the government has a well-designed development strategy. Where meaningful participation by the community is required to implement the strategy effectively and the community is unwilling to do so, it is unlikely that significant change will happen. In these circumstances investments in actions that strengthen trust, civic capital and social capital are needed to strengthen social cohesion before formal economic development initiatives can succeed.

Prior OECD reviews of rural policy provide examples of effective ways of building community capital. Poland's Strategy for Responsible Development and Korea's Saemaul Undong address this issue (OECD, 2018[19])(Box 6.10). The common characteristic of these programmes was the recognition by governments that it was first necessary to invest in capacity building in rural communities to create the foundation for co-operation on subsequent economic development activity. In each instance, government invested in a multiyear approach that encouraged groups to identify local projects that could be accomplished relatively quickly with low investments. Initial successes created a sense that collaboration was useful and allowed all participants to benefit. While some places were less successful than others, the approach if given time and support for building trust creates a strong foundation for implementing more complex development policies. Following initial success in creating trust, with social and civic capital, it is easier to expand other forms of community capital.

Box 6.10. Poland's 2016 Strategy for Responsible Development (SRD)

The SRD is a short- to medium-term national development strategy with the objective of achieving bounced growth across the entire national territory. Its broad aim is to provide all poles with better incomes and a higher quality of life while increasing the competitiveness of the national economy. Three main policy objectives are identified as leading to this broad outcome:

- Sustainable economic growth is increasingly driven by knowledge, data and organisational excellence.
- Socially sensitive and territorially sustainable development.
- Effective state and economic institutions contribute to growth as well as social and economic inclusion.

The new strategy recognises that recent economic growth in Poland while impressive, has been mainly driven by increased prosperity in larger urban agglomerations and that many of the more rural areas and smaller cities have not adequately participated in the recent economic growth. The resulting poverty and social exclusion have created stresses in Polish society that the SRD seeks to erase.

Within the SRD, a number of territories are targeted for specific support. Several of these territorially targeted supports are a continuation of existing programmes. Other initiatives are however new, such as the new Pact for Rural Areas, a document that aims to co-ordinate actions for rural development in order to better target support through the use of national and EU funds. Its development was led by the Ministry of Agriculture and Rural Development in consultation with various stakeholders. With the input of these groups, a number of priority areas for rural development were determined, including business development technical and social infrastructure, public services, environmental protection and agricultural markets.

The Pact for Rural Areas entails two sets of activities: i) a short-term perspective focused on existing instruments and funds directed to the most urgent areas for action; and ii) a long-term perspective that has the potential to entail legislative, institutional and programmatic changes. This signals an opportunity for some fundamental changes in the future and a concentrated effort for better cross-sectoral co-ordination at the national level.

Elements of the SRD that are relevant for Colombia include: a territorial approach but with a strong focus on improving conditions for family farming, the explicit recognition that investments in improving social cohesion in rural areas is vital; the importance of having a medium-term time horizon, with some actions having a short-term focus.

The short-term scope of the the strategic actions helped create buy-in on the policy from the local community.

Source: OECD (2018[19]), *OECD Rural Policy Reviews: Poland 2018*, https://dx.doi.org/10.1787/9789264289925-en.

Other actions from OECD countries to improve civil society involvement in rural policy include:

- Supporting community-led initiatives, a vector to strengthen and complement the implementation of rural policies. The strong community networks in rural areas offer opportunities for self-organisation that enable adaptability and resiliency to structural changes. Local initiatives are increasingly advocated by all levels of government as one remedy to global economic restructuring and local decline.
- Digitalisation, an increasingly common tool to engage public and private stakeholders in policy making and implementation (OECD, 2020[6]). Information and communication technology (ICT) and the widespread use of information technologies, social media and open data in society provide opportunities for governments to develop new methods of co-operation and create public value through inclusive and more informed policy-making processes, thus fostering user-driven service design and delivery. For example, in the context of social discontent in France in 2019 (“Gilets Jaunes” strikes), the French government developed a digital platform to collect opinions and recommendations from the population.
- Introducing a whistle-blower protection procedure, whose attempts in congress have failed in the last years and has been identified as a relevant step to improve trust in the government in Colombia (OECD, 2022[1]). Additionally, bringing all purchases by subnational governments into the central procurement entity (*Colombia Compra Eficiente*), as direct purchases still represent around 70% of total public procurement transactions.

Moreover, rural regions have always relied on their natural and environmental capital as a source of growth, and as concerns with climate change and environmental degradation become more common, there is a renewed focus on improving the management of this form of community capital. Because rural economies are functionally different from urban economies and more reliant on nature, they experience the consequences of climate change more directly than cities.

On the other hand, they may be more willing to trade the environmental costs from environmentally damaging resource use against the direct benefits of income and employment because they capture the benefits when the costs are diffused across broader society. For national governments, the tension between rural development and environmental protection is a significant policy challenge, especially where governments have been unable to control illegal mining and deforestation, and the illegal discharge of toxic substances into rivers and streams. Not only do these practices create environmental damage that extends beyond national borders but they also do so in a way that provides no benefits to the general public, and minimal benefit to the people who derive informal employment from the activity.

Finally, involving the private sector could accelerate the implementation of a comprehensive strategy for rural development. The private sector in Colombia has had a historically relevant role in rural well-being. The Coffee Producers Federation has taken up a governmental role and constructed schools and roads in many municipalities of Antioquia and Risaralda. Mining and oil companies have also built roads and contributed to public works, like sanitation or electricity. Moreover, even in some municipalities with high levels of conflict, agricultural companies have conducted investments (e.g. sugarcane companies in Cauca).

This is a capital that can be further mobilised by rural policy. One recent opportunity to improve partnerships with private companies is the Work for Taxes mechanism, which allows companies to reduce taxes with investment in public works in municipalities that were affected by the conflict. This is an important and innovative mechanism to accelerate the implementation of the peace agreement and can be extended to other poor municipalities.

In rural regions, it is also common for civil society, in the form of local organisations, to act where private enterprise or government is not meeting local needs. But whether it is a social enterprise that provides goods or services that a firm might normally provide or a charitable organisation that meets local needs for services when a government does not, there remains a need for funds to support the organisation's work. In poor rural regions, civil society often struggles to fill the gaps because there is insufficient funding to operate even though most of the labour needed may be from volunteers.

Many OECD countries have a long history of providing credit to agriculture either directly or through subsidies to co-operative lenders. More recently, some OECD governments have provided support to various social enterprises that in turn either lend to or make equity investments in rural firms. These efforts recognise: that the cost of credit can be high in rural areas due to few lenders, which reduces competition; an inability of lenders to adequately assess underlying risk, which can raise interest rates or preclude lending; and a general higher cost of doing business in rural areas which reduce profitability (OECD, 2018[19]).

Promote urban-rural partnerships

While rural and urban areas have their unique internal characteristics and dynamics, complex relationships connect them deeply and make them interdependent. Any economic, social or environmental change in a rural place has the potential to affect the internal dynamics in cities, and vice-versa. Some of the linkages emerge naturally from the functional connections in a territory and can be easily identified (e.g. commuting flows of workers from one place to another, or shared natural resources), while others are less tangible or might not exist yet. The increasing adoption of virtual modes of communication adds another layer to this

relationship, by allowing the exchange of services among municipalities that are distant from each other and do not share any boundary.

Active co-ordination of the existing or future linkages can help make these relationships an effective tool for greater regional well-being. Linkages per se are already drivers of territorial development, as they reveal existing complementarities among territories and more effective use of local assets. Yet, linkages alone do not necessarily ensure the sustainability of the interactions over time nor the best use of common resources.

Partnerships are mechanisms to manage those urban-rural linkages and foster co-operation across rural and urban areas, by directly involving both types of areas in the co-operation process (Box 6.11). Urban-rural partnerships consist of cross-sectoral and holistic sets of initiatives (e.g. within a general package of economic policy initiatives) or single objectives/projects (i.e. management of water resources) that can be linked to wider strategies (e.g. regional or municipal environmental or development strategies) (OECD, 2013[20]). Irrespective of their structure and scope, partnerships can become a useful tool to manage linkages and ensure they help attain sustained interactions that improve well-being in the territory.

Box 6.11. Differences between urban-rural linkages and partnerships

Urban-rural linkages

Urban-rural linkages are interactions among urban and rural areas across a broad set of concepts, including economic, social and environmental dimensions (Chapter 2). These linkages encompass different geographies, which often cross local and regional administrative boundaries.

Linkages also vary by the degree of territorial relationship. Some reflect a simple or unidimensional interaction (e.g. a shared river), while others involve more intertwined interactions that cover a greater number of well-being dimensions.

Urban-rural partnerships

Urban-rural (or rural-urban) partnerships are mechanisms of co-operation that manage and govern urban-rural linkages in a given territory to reach common goals, improve well-being and ensure sustainable relationships.

A distinctive characteristic of partnerships is that stakeholders from both urban and rural places are directly involved in the process to define a common set of objectives. Urban-rural partnerships reveal existing and potential complementarities in the territories, as they are driven and emerge based on the linkages between urban and rural areas. Therefore, partnerships allow different types of regions and areas to join efforts and resources to reach common objectives that cannot be achieved in isolation (or at least not as effectively).

Partnerships require a certain form of organisation to ensure the sustainability of the co-operation. Organisations can take different forms including clear institutional bodies or less formal organisational structures. Depending on the purposes of the partnership, the actors involved will vary from the public sector or private sector to a mix of public, private and other actors.

Source: OECD (2013[20]), *Rural-Urban Partnerships: An Integrated Approach to Economic Development*, https://dx.doi.org/10.1787/9789264204812-en.

Urban-rural partnership can help improve many dimensions of regional well-being in Colombia, including the economy, access to services and environmental management:

- *Economy*. For example, fostering supply chains (e.g. Agro-industry), improving links between small- and medium-sized enterprises (SMEs) and universities/research centres, attracting investors or developing join investments in tourism (Box 6.12).
- *Delivery of public services*. For example, sharing the delivery of education (children attending urban schools) and healthcare, developing joint ICT infrastructure or extending transport infrastructure beyond urban boundaries.
- *Manage environmental amenities*. For example, better spatial planning and landscape preservation or co-ordinating utility providers (e.g. waste collection) and natural resources management (e.g. water).

Box 6.12. Urban-rural partnerships to boost tourism in Poland: The case of the mountain bike routes in the Karkonosze Mountains

Due to the natural and landscape values of the Jelenia Góra Agglomeration (AJ), tourism is an extremely important branch of the economy. The first formal step to support links between urban and rural areas of the Jelenia Góra Agglomeration municipalities was the signing in 2015 of an agreement entrusting the city of Jelenia Góra with the management of Integrated Territorial Investments in the agglomeration. Eighteen municipalities, including 6 urban, 6 urban-rural and 6 rural, as well as the city of Jelenia Góra signed the agreement.

To implement this partnership, the most important step was to diagnose the potential benefits that various types of entities, both in cities and rural areas, could gain thanks to the co-operation. The Jelenia Góra Agglomeration put the greatest emphasis on the utilitarian nature of the co-operation and the indication of its practical benefits to foster the partnership.

The Regional Operational Programme for Dolnośląskie Voivodship (RPO WD) selected co-financing projects based on the principle of partnership and urban-rural co-operation.

This partnership conducted three implementations of projects related to tourism:

- Closer to Nature, Protecting Nature: construction of sustainable mountain bicycle routes in the Karkonosze Mountains.
- Trail of tradition and regional production in the Polish-Czech region of the Jelenia Góra Valley, Jizera Mountains and Karkonosze Mountains.
- Tourism in the Borderlands of the Jizera Mountains, Korkonosze Mountains and Lusatia.

Closer to Nature, Protecting Nature is a joint project involving the city of Jelenia Góra, the urban municipality of Piechowice and the municipality of Podgórzyn, which joined forces through an inter-municipal association to increase tourism attractiveness based on a shared natural protected area. The project consisted in building 63 km of mountain bike routes with a focus on protecting natural assets, avoiding valuable habitats of flora and fauna, and contributing to the organisation of cycling tourism.

This project has contributed to the growth of the tourism industry of the city of Jelenia Góra, the municipality of Piechowice and the municipality of Podgórzyn. The construction of a bicycle network has been a key asset, especially for bicycle tourism as it increased the number of points providing related services, including gastronomic and hotel networks. This project also helped reduce pressure on valuable natural areas, contributing to the protection of local natural resources. The construction of bicycle paths was complemented by promotional and educational activities, including 2 000 printed maps containing the course of mountain biking routes and information about the values of naturally valuable areas, as well as an educational bicycle trip during which participants could learn about the natural values of protected areas.

The city of Jelenia Góra became the leader of the project and its co-ordinator. As a leader, the city of Jelenia Góra was responsible for writing, managing and settling the grant application. The project partners, Piechowice City Municipality and Podgórzyn Municipality, participated in its implementation by participating in its financing and carrying out promotional and educational activities.

Factors that facilitated this partnership:

- Full commitment of the project partners.
- Efficient management by the partnership's leader, the city of Jelenia Góra.

Challenge: Municipalities could not reach an agreement on a single approach to maintain the routes. Each municipality will therefore be in charge of maintaining its own part of the route, which leads to under-efficient use of resources and a potential mismatch of route quality across the entire trail. This lack of agreement was mainly due to changes in political leadership and low interest in the extent of the partnership in the initial agreement beyond the initial investment.

Source: OECD (forthcoming[21]), *Enhancing Urban-Rural Partnerships in Poland*, OECD Publishing, Paris.

The national policy framework in Colombia does not provide an explicit recognition of the existence or advantages of urban-rural partnerships, meaning that they are not specifically conceived to boost co-operation solely among urban and rural municipalities. Instead, many instruments, such as *Pactos*, promote co-operation among different types of municipalities, which is not negative in itself, but they do not recognise specificities among urban and rural municipalities and miss opportunities to mobilise synergies in both types of areas. Urban and rural economies and communities differ in many areas, from their vision of development and endogenous assets to their staff and financial capacity. A clearer recognition of the barriers to and benefits of joint projects among urban and rural assets can help solve regional challenges and spark angles of co-operation.

Moreover, while the Colombian government has a strong legal basis for inter-municipal co-operation, the 2011 Organic Law on Territorial Management (*Ley Orgánica de Ordenamiento Territorial*, LOOT), few co-operative structures at the municipal level have directly followed the LOOT. Lack of financial incentives, shortages of special organisational skills and low levels of trust between subnational governments may explain the small number of co-operative arrangements seen so far.

At the national level, policies for rural and urban development are loosely co-ordinated. As occurs with rural development, the lack of a national platform to co-ordinate sectoral policies for rural and urban development (e.g. transport projects that extend beyond the city or co-ordinated business support) hampers joint approaches and investments to solve local problems. Furthermore, MADR, in charge of rural policy, and the Ministry of Housing and territory, in charge of urban policy, do not have clear spaces for co-ordination, or joint investments or projects to promote urban-rural partnerships at the local level.

Urban-rural partnerships can also contribute to increasing trust and local co-operation. As urban municipalities or cities tend to have the greater administrative capacity, inter-municipal agreements require greater attention to ensure trust in different levels of government. Experiences in OECD countries reveal that trust can be gained by developing easy to implement joint actions on short-term projects and establishing partnership structures that offer an equal voice and vote to all partners to prove that co-operation can be effective (OECD, 2013[20]).

The national government has scope to promote urban-rural partnerships through the following actions:

- Improve the understanding of urban-rural linkages across the country with data at the appropriate spatial level.
- Establish clear guidelines to conduct urban-rural partnerships, in which municipalities can identify the benefit of co-operation and the legal and institutional arrangements that will allow them to co-operate. These guidelines should also contain partnership implementation procedures with clear goals, adopt structures that ensure an equal voice and vote for all partners, regardless of their financial capacity, and set up monitoring indicators.
- Co-ordinate national rural and urban policies to set institutional and financial incentives to develop urban-rural partnerships. This can be done in the National Development Plan.

References

Agency for Reincorporation and Normalisation (2021), *PDET*, https://www.reincorporacion.gov.co/es/reincorporacion/PDET/PDET-General-Noviembre.pdf. [8]

Colombia, U. (ed.) (1999), "El sector rural y el plan de desarrollo", *Cuadernos de Economía*, Vol. 18/30, pp. 167-179, http://file:///C:/Users/Sanabria_a/Downloads/Dialnet-ElSectorRuralYElPlanDeDesarrollo-4934918.pdf. [25]

DNP (2021), *Resultados Medición Desempeño Municipal 2020*, Dirección de Descentralización y Desarrollo Regional. [10]

DNP (2015), *El Campo Colombiano: Un Camino Hacia el Bienestar y La Paz*, Misión para la Transformación del Campo, https://www.dnp.gov.co/programas/agricultura/Paginas/Informe-misi%C3%B3n-FInal.aspx. [24]

Emery, M., I. Gutierrez-Montes and E. Fernandez-Baca (eds.) (2016), *Sustainable Rural Development*, Routledge, https://doi.org/10.4324/9781315540504. [18]

Government of Chile (2020), *National Policy of Rural Development*, https://www.masvidarural.gob.cl/wp-content/uploads/2021/10/Politica-Nacional-de-Desarrollo-Rural-PDF.pdf. [14]

Government of Colombia (2021), *Colombia's 1st Post-Accession Progress Report in Regional Development Policy*, Shared for information with the Regional Development Policy Committee. [17]

Ministerio de Agricultura y Desarrollo Rural (2021), *Plan Estratégico Sectorial 2019 – 2022: Informe de Seguimiento y Evaluación*, Oficina Asesora de Planeación y Prospectiva. [16]

OECD (2022), *OECD Economic Surveys: Colombia 2022*, OECD Publishing, Paris, https://doi.org/10.1787/04bf9377-en. [1]

OECD (2021), *Mining Regions and Cities Case of Västerbotten and Norrbotten, Sweden*, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/802087e2-en. [15]

OECD (2021), *OECD Regional Database*, OECD Publishing, Paris. [12]

OECD (2020), *Rural Well-being: Geography of Opportunities*, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/d25cef80-en. [6]

OECD (2019), *Asymmetric Decentralisation: Policy Implications in Colombia*, OECD Multi-Level Governance Studies, OECD, Paris, https://www.oecd.org/colombia/Asymmetric_decentralisation_Colombia.pdf. [11]

OECD (2018), *OECD Public Governance Scan: Colombia*, OECD, Paris, https://www.oecd.org/gov/Colombia-Scan-Final-English.pdf. [3]

OECD (2018), *OECD Rural Policy Reviews: Poland 2018*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264289925-en. [19]

OECD (2016), *Making the Most of Public Investment in Colombia: Working Effectively across Levels of Government*, OECD Multi-level Governance Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264265288-en. [5]

OECD (2015), *OECD Review of Agricultural Policies: Colombia 2015*, OECD Review of Agricultural Policies, OECD Publishing, Paris, https://doi.org/10.1787/9789264227644-en. [2]

OECD (2014), *OECD Rural Policy Reviews: Chile 2014*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264222892-en. [13]

OECD (2014), *OECD Territorial Reviews: Colombia 2014*, OECD Territorial Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264224551-en. [4]

OECD (2013), *Rural-Urban Partnerships: An Integrated Approach to Economic Development*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264204812-en. [20]

OECD (2011), *OECD Rural Policy Reviews: England, United Kingdom 2011*, OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/9789264094444-en. [9]

OECD (forthcoming), *Enhancing Urban-Rural Partnerships in Poland*, OECD Publishing, Paris. [21]

Shortall, S. and M. Alston (2016), "To rural proof or not to rural proof: A comparative analysis", *Politics and Policy*, Vol. 44/1, pp. 35-55, https://doi.org/10.1111/polp.12144. [7]

UNDP (2011), *Colombia rural Razones para la esperanza*, Informe Nacional de Desarrollo Humano 2011, United Nations Development Programme. [23]

World Bank (2014), *Colombia Policy Notes: Toward Sustainable Peace, Poverty Eradication and Shared Prosperity*, World Bank, Washington, DC. [22]

Notes

[1] Centrally-led agencies located in regions and able to plan their actions and collaborate amongst themselves, with the state continuing to lay down guidelines, mitigate resource inequalities and evaluate their performance.

[2] Agencies with a differentiated governance structure and independent authority for management, decision-making and policy implementation.

[3] At the regional level alone, only 8 out of 32 departments are classified with high and good capacities (Groups 1 and 2 in the certification system).

OECD Rural Studies

Rural Policy Review of Colombia 2022

Rural regions in Colombia have untapped potential to boost wealth and well-being in the country. Despite remarkable economic growth over the last two decades, Colombia's development policy needs to increase its focus on rurality, as regional inequalities remain high by OECD standards and structural challenges still prevent greater development in rural places. This report assesses trends, challenges and opportunities of rural Colombia and examines the country's rural development policy. It offers recommendations to mobilise rural assets and improve rural well-being with a focus on: strengthening multi-government coordination and policy implementation; enhancing transport and broadband connectivity as well as accessibility to quality education and health and; improving land use management in rural Colombia.

PRINT ISBN 978-92-64-49785-6
PDF ISBN 978-92-64-82849-0

9 789264 497856