

Climate Change Expert Group

Paper No.2023(2)

Making the Mitigation Work Programme fit for purpose: Options for forms, focus and information that would lead to successful implementation

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Acknowledgements

The authors would like to thank Lorelei Charlot (OECD) and Benjamin Carvajal Ponce (IEA) for their background research and inputs to this paper, and OECD colleagues Sirini Jeudy-Hugo, as well as Geraldine Ang, Valentina Bellesi, Takayoshi Kato, Xavier Leflaive, Jens Sedemund, Cecilia Tam, Klas Wetterberg, Robert Youngman and IEA colleague Kieran McNamara for their comments and feedback on earlier drafts of the paper. The authors would also like to thank Chao Feng (Australia), Geert Fremout (Belgium), Marianne Karlsen (Norway), Elizabeth Rowe (United Kingdom), Bernd Hackmann (UNFCCC), Tara Shine (Change by Degrees), Leon Charles (Independent consultant), Amanda McKee and Romeo Bertolini (NDC Partnership), Harald Winkler (University of Cape Town, South Africa), Ubaldo Elizondo, Chinwe Binitie, Laura Alonzo (World Bank) for their comments and views. The authors would also like to thank facilitators, presenters and attendees at the March 2023 CCXG Global Forum on the Environment and Climate Change, whose views and feedback helped shape the final paper.

The CCXG Secretariat would like to thank Australia (Department of Foreign Affairs and Trade), Belgium (Federal Public Service Health, Food Chain Safety, Environment), Canada (Environment and Climate Change Canada), the European Commission, Finland (Ministry of the Environment), Germany (Federal Foreign Office), Italy (Ministry of the Environment and Energy Security), Japan (Ministry of the Environment), Netherlands (Ministry of Economic Affairs and Climate Policy), New Zealand (Ministry for the Environment), Norway (Ministry of Climate and Environment), Republic of Korea (Ministry of Foreign Affairs), Sweden (Swedish Environmental Protection Agency and Swedish Energy Agency), Switzerland (Federal Office for the Environment), the United Kingdom (Cabinet Office) and the United States (Department of State) for their direct funding of the CCXG in 2022/2023, and the OECD, the IEA, and Belgium for their in-kind support of the CCXG in 2022/2023.

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Abstract

Parties established the Mitigation Work Programme (MWP) at COP26 to “urgently scale up mitigation ambition and implementation” to help reach the temperature goal of the Paris Agreement. At COP27, Parties further fleshed out the MWP, which will be operationalised each year between 2023-2026 via at least two global dialogues, other dialogues and investment-focused events. This paper outlines key questions that could shape the aims, scope, focus, format, and participation in the dialogues, as well as the possible interplay between the MWP global dialogues and investment-focused events by drawing on experiences with other processes and events inside and outside the UNFCCC. This paper also provides lessons from examples in three sub-sectors where mitigation actions have been rapidly scaled up. This paper highlights several open questions related to the substance, process, and timing of the global dialogues and the investment-focused events, as well as potential linkages between these. The paper also discusses possible implications of different choices on these open questions. Decisions on the scope, format, and aims of the MWP dialogues will influence their impacts and the relevance of these dialogues to different countries and stakeholders. Yet, dialogues and events under the MWP will face trade-offs between concentrating on short- versus longer-term issues and outcomes and on choosing a broad or narrow focus. Such choices will impact how many countries the event or dialogue is relevant to. In addition, there are various ongoing initiatives and events outside the UNFCCC that are relevant to the aims of the MWP and that the MWP could usefully learn from. Careful mapping and co-ordination are needed to ensure that the MWP builds on, rather than duplicates, existing initiatives and events within and beyond the UNFCCC.

JEL Classifications: Q54, Q56, Q58, H70, F53, E22

Keywords: UNFCCC, climate change, Paris Agreement, Mitigation work programme, global dialogues, investment-focused events

Résumé

À la COP26, les Parties à la CCNUCC ont établi un programme de travail « dont l'objectif est de relever sans délai le niveau d'ambition en matière d'atténuation et d'accélérer l'application des mesures correspondantes », afin d'atteindre l'objectif de limitation du réchauffement de l'Accord de Paris. À la COP27, elles ont continué de donner corps à ce programme de travail sur l'atténuation (PTA), qui se traduira sur le plan opérationnel par la tenue, chaque année durant la période 2023-26, d'au moins deux dialogues mondiaux, d'autres dialogues et manifestations consacrés à l'investissement. Ce document décrit les principales questions qui pourraient déterminer les objectifs des dialogues, leur portée, leurs thèmes principaux, leur format et la participation, ainsi que les possibilités d'interaction entre les dialogues mondiaux et les manifestations consacrées à l'investissement dans le cadre du PTA, en s'appuyant sur l'expérience acquise dans le cadre d'autres processus et événements relevant ou non de la CCNUCC. Il présente également certains enseignements qui se dégagent de trois sous-secteurs qui connaissent une rapide montée en puissance des mesures d'atténuation. Le document met en exergue plusieurs questions en suspens qui concernent le fond, le processus et la chronologie des dialogues mondiaux et des manifestations consacrées à l'investissement, ainsi que les liens potentiels entre eux. Il examine également les possibles implications de différents choix pouvant être faits en réponse à ces questions. Les décisions quant à la portée, au format et aux objectifs des dialogues du PTA influenceront leurs retombées et leur pertinence pour différents pays et parties prenantes. Les dialogues et les événements dans le cadre du PTA nécessiteront toutefois d'équilibrer entre enjeux à court et long termes et entre thèmes principaux généraux et restreints. Ces choix contribueront à déterminer le nombre de pays pour qui un événement ou un dialogue sera particulièrement pertinent. En outre, plusieurs initiatives et manifestations en cours en dehors de la CCNUCC sont pertinentes pour les objectifs du PTA, et il serait utile que celui-ci mette à profit leurs enseignements. Une attention particulière doit être portée au recensement et à la coordination pour que le PTA mette à profit – et ne fasse pas double emploi avec – les initiatives existantes et les événements organisés à l'intérieur et en dehors de la CCNUCC.

Classification JEL : Q54, Q56, Q58, H70, F53, E22

Mots clés : CCNUCC, changement climatique, Accord de Paris, programme de travail sur l'atténuation, dialogues mondiaux, manifestations consacrées à l'investissement

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List of Acronyms

AFOLU	Agriculture, Forestry and Other Land Use
ASEAN	Association of Southeast Asian Nations
bcm	billion cubic metres
CAR	Cadastro Ambiental Rural (Rural Environmental Registry)
CASA	Clean Air Strategic Alliance
CB	Capacity Building
CBD	Convention on Biological Diversity
CCXG	Climate Change Expert Group
CDM	Clean Development Mechanism
CEFIM	Clean Energy Finance and Investment Mobilisation
CERIN	Canadian Emissions Reduction Innovation Network
CH₄	methane
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties
CSO	Civil Society Organisation
C40	C40 Cities Climate Leadership Group
CTCN	Climate Technology Centre and Network
DETER	Real-time Detection of Deforestation
DFIs	Development Finance Institutions
ETS	Emissions Trading System
EU	European Union
EVs	Electric vehicles

FSV	Facilitative Sharing of Views
GCP	Glasgow Climate Pact
GEF	Global Environment Facility
GFANZ	Glasgow Financial Alliance for Net Zero
GHG	Greenhouse gas
GMP	Global Methane Pledge
GST	Global stocktake
GWP	Global warming potential
ICE	Internal Combustion Engine
IEA	International Energy Agency
IDFC	International Development Finance Club
IOs	International Organisations
IPCC	Intergovernmental Panel on Climate Change
JETPs	Just Energy Transition Partnerships
JETRO	Japan External Trade Organisation
KfW	German National Development Bank
LDCs	Least Developed Countries
LDVs	Light-Duty Vehicles
MA	Multilateral Assessment
MDBs	Multilateral Development Banks
MICs	Middle Income Countries
MRT	Ministerial Round Table
MWP	Mitigation Work Programme
NAMA	Nationally Appropriate Mitigation Action facility
NDCs	Nationally Determined Contributions
NDE	Nationally Designated Entity
NGO	Non-Governmental Organisation

NPS	Non-Party Stakeholder
NWFE	Nexus on Water, Food and Energy
OECD	Organisation for Economic Co-Operation and Development
PCF	Pan-Canadian Framework on Clean Growth and Climate Change
PPCA	Powering Past Coal Alliance
PPCDAm	Action Plan for Prevention and Control of Deforestation in the Legal Amazon
PTAC	Petroleum Technology Alliance Canada
REDD+	Reducing Emissions from Deforestation and Forest Degradation in developing countries
RSA	Republic of South Africa
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SBTi	Science-Based Targets initiative
SDGs	Sustainable Development Goals
SGP	Small Grants Programme (of the GEF)
TA	Technical Assistance
TEM	Technical Expert Meeting
UNFCCC	United Nations Framework Convention on Climate Change
USD	US dollar
VAT	Value Added Tax
WBG	World Bank Group
ZEV	Zero Emission Vehicle

Executive summary

Rapid and deep reductions in greenhouse gas (GHG) emissions are needed to meet the Paris Agreement's temperature goal. To help meet this goal, the 2021 Glasgow Climate Pact (GCP) established a Mitigation Work Programme (MWP) to “urgently scale up mitigation ambition and implementation”, and the MWP's mandate was further fleshed out in 2022. This mandate is to be operationalised via at least two annual global dialogues and other in-person or hybrid dialogues that foster a “focused exchange of views, information and ideas” between Party and non-party stakeholders (NPS), and “investment-focused events”. These events will be guided by two MWP co-chairs, who will choose the topics for the global dialogues annually considering Party and NPS submissions. The 2023 MWP dialogues will focus on accelerating a just energy transition. The MWP “investment-focused events” are to be held in the margins of the global dialogues or other in-person or hybrid dialogues and existing events, with the aim to unlock finance, overcome access barriers, and identify investment opportunities. By combining global dialogues with investment-focused events, the MWP aims to scale-up implementation of urgent mitigation action.

The MWP could usefully learn lessons from relevant processes, their outputs (e.g. reports and decisions), and events inside and outside the United Nations Framework Convention on Climate Change (UNFCCC) to ensure that this MWP is “fit for purpose”. Lessons on the scope, focus, format and stakeholder participation could help ensure that the MWP builds on other experiences and avoids duplicating ongoing processes. This paper identifies key questions that could help shape the aims, scope, focus, format and participation of stakeholders as well as the possible interplay of the MWP global dialogues and investment-focused events by building on experiences with other processes, outputs and events. This paper also offers policy and deployment lessons from examples in three sub-sectors where mitigation actions have been rapidly scaled up, and insights from international initiatives and coalitions.

There are several open questions regarding substance and process for (i) the global dialogues and (ii) the investment-focused events (hereafter (i) and (ii) together referred to as “MWP events”), that the MWP co-chairs and the UNFCCC secretariat will need to provide decisions on. Some of the key substance questions are common to all MWP events, such as the specific aim of the events, topics to be covered, how narrow or broad these topics should be, and the potential linkages between the different MWP events held within a given year and over the duration of the MWP. Process-related questions include key stakeholder identification, their role at various events, and the format and length of events. Fortunately, there is significant relevant experience inside and outside the UNFCCC that the MWP events could usefully build on in this regard. In the context of investment-focused events, the high-level climate champions have also been mandated to ensure the effective participation of NPS and to support the co-chairs and the UNFCCC secretariat with the organisation of dialogues and events.

The MWP co-chairs are given significant leeway to guide the scope, focus and format of events. The topic(s) chosen by the co-chairs for the global dialogues could be based on a multi-criteria assessment that considers several factors, such as mitigation potential, scalability, replication, best practices, proven policies, and priority commitments from previous decisions of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA). Balancing Party suggestions for broad topics (e.g. “just transition”) with the MWP aim of leading to a “focused exchange of views, information and ideas” will be important. Focusing on a specific sub-sector (e.g. methane reduction from oil production) or a specific theme (e.g. legislative frameworks to facilitate deployment of sectoral mitigation actions) may help facilitate a “focused” dialogue. Attracting relevant stakeholders to the global dialogues will also be key and could potentially be done via a selection process, managed by the organisers. The timing of the global dialogues

can be challenging, particularly for the first global dialogue each year, as it takes place only 2-3 months after the topic has been announced by the MWP co-chairs.

The time lag between a MWP event and mitigation action on the ground will vary depending on many factors, including the specific aim and focus of MWP events. For instance, creating an enabling environment with the necessary institutional arrangements and policies to encourage investment is vital in scaling up mitigation actions. Yet, there may be longer time lags between MWP events and action on the ground if these MWP events are focused on improving enabling environments rather than being focused on designing, implementing and financing specific and replicable mitigation actions. A key challenge to “urgently” scale up implementation relates to the potential time lags associated with identifying, financing and deploying mitigation solutions at scale. The selected MWP topic(s) each year are also likely to influence design options relating to scope, focus, format of and participation in MWP events. Decisions on these design options will also affect the quantity and quality of information exchanged under the MWP. Relevant actors’ ability to scale up mitigation actions will be facilitated by targeted, actionable information.

Investment-focused events are also part of the MWP, although their link to the global dialogues is yet to be specified. Narrowing down the huge potential range of possible aims and topics for such events will be important, both to ensure that the events attract appropriate stakeholders, and lead to rapid action on the ground. The organisers of these investment-focused events (MWP co-chairs, supported by the UNFCCC Secretariat and the climate champions) can choose their number, as well as their focus, topics, length and location. This paper lays out five different possible aims of investment-focused events that could fit the MWP’s mandate. These include focusing on: 1) overcoming policy barriers to investments; 2) overcoming barriers to investments for specific activity types or in specific sectors; 3) overcoming barriers to accessing finance; 4) unlocking finance; and 5) identifying investment opportunities. The aim of individual MWP events will influence whether these events benefit mainly those countries/sectors that already have a good enabling environment for investment, or countries/sectors with significant potential but where improvement in the enabling environment is needed. Both sets of events could lead to increased investment flows – although the latter option could result in an increased time lag in investment flows and thereby in mitigation actions, as also outlined above.

Increased deployment of existing low-GHG technologies and approaches is needed to urgently scale up mitigation ambition and implementation. This paper outlines three different examples (methane abatement in Canada, electric vehicles uptake in Norway, and reduced deforestation in Brazil), where rapid scale-up of mitigation actions has occurred. Although there were specific circumstances and different starting points in each case, there are also common elements relating to what has and has not worked. These are: 1) collaboration and communication between multiple stakeholders (government and NPS); 2) deployment and enforcement of policy packages over an extended period, and 3) technological advancements. Identifying factors that contributed to policy success and exploring how they could be replicated elsewhere could be useful information exchanged at MWP global dialogues. The paper also outlines some of the many existing international climate mitigation initiatives and coalitions which engage various stakeholders to accelerate dissemination and deployment of promising mitigation actions.

Many barriers and gaps in various sectors impede a rapid scaling up of mitigation activities, thus, a wide range of possible dialogues and events could be held under the MWP to address these. The barriers and gaps include those related to policy frameworks, mobilising and accessing mitigation finance, and capacity. The MWP co-chairs could consider several factors (e.g. potential impact and urgency) when choosing which barrier or gap to focus on first. The barrier or gap chosen will influence the countries and stakeholders benefiting from MWP events, and the time lag between MWP events and mitigation action on the ground. Selecting a specific barrier or gap for a given MWP event will ensure a clear objective for the event and facilitate a focused approach towards scaling up mitigation actions. Decisions by the MWP co-chairs on the scope, format, and specific aims of MWP events can impact how successful the MWP is in meeting its objectives. MWP events will face trade-offs between focusing on short- versus longer-term issues and outcomes, and on narrower or broader topics, relevant to fewer or a larger number of countries.

1. Introduction

The need for rapid and deep reductions in emissions of greenhouse gases (GHG) in order to limit average temperature rises to within the limits set out by the Paris Agreement is clear (IPCC, 2021^[1]). One of the outcomes of the 26th Conference of the Parties (COP) was the Glasgow Climate Pact (GCP), (UNFCCC, 2021^[2]), which i.a. decided to establish “a work programme to urgently scale up mitigation ambition and implementation in this critical decade”. Ensuring that this mitigation work programme (MWP) is “fit for purpose” is a crucial challenge. Successfully meeting this challenge will need to involve many different actors, and occur in many different sectors and countries.

The objectives, modalities, governance and outputs of the MWP were agreed in 2022 at the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) (UNFCCC, 2022^[3]). The MWP will be guided by two co-chairs, and will include a variety of different events and outputs. These events include i.a. at least two global dialogues to be held every year between 2023-2026.¹ These global dialogues are to “facilitate a focused exchange of views, information and ideas” on selected topics (UNFCCC, 2022^[3]), which will be summarised in a report. This report will be presented to the annual high-level ministerial round table (MRT) (UNFCCC, 2021^[4]) by the MWP co-chairs. In addition to the “focused exchange”, the MWP will also organise “investment-focused events” in the margins of the global dialogues or other in-person or hybrid dialogues and existing events. These investment-focused events aim to “[unlock] finance ...[overcome] barriers to access to finance and [identify] investment opportunities and actionable solutions”, and will be organised by the UNFCCC Secretariat, the MWP co-chairs and supported by the climate champions (UNFCCC, 2022^[3]).

Many different types of dialogues and events have already been, or are currently being, held under the auspices of the UNFCCC, as well as outside the UNFCCC framework. These events are held across a variety of subject areas, and have a variety of different objectives – some of which are closely related to the objectives of the MWP. For example, the first Global Stocktake (GST) under the Paris Agreement, which includes a thematic track on mitigation, will conclude at COP28 in December 2023, and the MWP is specifically requested to “complement” the GST (UNFCCC, 2022^[3]). The purpose, scope, frequency, participation, format, inputs, outputs and outcomes of current and previous discussions organised under the UNFCCC vary widely. To facilitate the MWP meeting its objective of urgently scaling up mitigation ambition and implementation it will be useful to assess experience with dialogues and other events inside and outside the UNFCCC to identify relevant lessons for the MWP – both in terms of substance (e.g. scope and focus of discussions) as well as process (e.g. format, stakeholders to involve, how to involve them etc.). It would also be useful to assess how the investment-focused events that will be organised under the guidance of the MWP co-chairs could most usefully interact with the MWP’s global dialogues.

This paper highlights questions that could usefully be considered by the international community, including the MWP co-chairs, when deciding how to take forward the MWP. In addition, this paper outlines options for the focus, format, structure and participation of stakeholders in a focused exchange of views at the global dialogues, as well as the associated investment-focused events. Decisions on these aspects will

¹ There will be a subsequent discussion in the UNFCCC process regarding whether the MWP will be extended beyond 2026.

determine the impact of the MWP on the mitigation of GHG emissions, and it will therefore influence the extent to which the MWP meets its objectives. Moreover, the paper provides lessons from three case studies in selected sub-sectors where there has been a rapid scale-up of low-GHG technologies or systems. These lessons identify what types of “information” could be “exchanged” at upcoming MWP dialogues to facilitate a rapid up-scaling of promising mitigation policies, measures and systems.

The structure of this paper is as follows. Section 2. provides some background and context on the MWP as well as on experience with relevant dialogues both inside and outside the UNFCCC process. Section 3. highlights possible options for the aim, scope, format, and participation of the global dialogues as well as for the investment-focused events of the MWP. Section 4. highlights successful examples of rapid growth in the deployment of low-GHG technologies or systems in three different sub-sectors and countries, as well as it outlines selected international climate mitigation initiatives and coalitions to identify possible lessons for the MWP. Section 5. highlights conclusions from the analysis.

2. Background and context

The agreed objective of the MWP is to “urgently scale up mitigation ambition and implementation in this critical decade in a manner that complements the global stocktake”.² This urgency, as well as the explicit mention of MWP events “unlocking finance” and “identifying investment opportunities and actionable solutions”, implies that the MWP is viewed as a process that is to lead to increased mitigation action on the ground.

In order to urgently scale up mitigation ambition and implementation, successful mitigation policies, programmes, technologies and systems will need to be replicated and scaled up. Indeed, the Intergovernmental Panel on Climate Change (IPCC) estimates that global levels of GHG emissions can be reduced by a quarter compared to 2019 levels by implementing existing mitigation options across a variety of sectors that have a cost of US dollar (USD) 20/t CO₂ or lower (IPCC, 2022^[5]). Tapping into this mitigation potential would help the MWP to meet its mandate, although it may not be sufficient to put the world on an emissions pathway consistent with limiting average temperature rises to 1.5°C (Fekete et al., 2021^[6]).³

There is a large literature relating to replicating, scaling up and mainstreaming successful climate mitigation policies, programmes, technologies, and systems (see e.g. (Fankhauser, Gennaioli and Collins, 2015^[7]) (Thisted and Thisted, 2019^[8]) (Gilardi and Wasserfallen, 2017^[9]) (Bößner et al., 2020^[10]) (UNFCCC, 2020^[11]). This literature highlights that successful replication and scaling up depends on multiple factors, will need to involve multiple different actors (see e.g. (Independent Evaluation Office GEF and UNDP, 2021^[12])),⁴ and can occur over a variety of different timescales. These factors will vary depending on the complexity of the policy, technology, etc. in question.⁵ Key factors include the policy framework in which these activities operate (see e.g. (Ellis, Lo Re and De Lorenzo, 2022^[13]) (OECD, 2015^[14])), governance in many policy areas as well as factors specifically related to climate (e.g. (IPCC, 2022^[5]) (OECD, 2015^[15])), availability of cost-effective technologies/systems, human and financial resources, and the social acceptability of mitigation policies, systems and technologies (e.g. (IPCC, 2022^[5])). Some case studies of successful replication, scaling up and co-operation efforts are explored in section 4.

² As the GST’s focus is on informing Nationally Determined Contributions (NDCs, the next round of which will have targets for 2035), this would imply that the MWP’s focus is on shorter-term mitigation opportunities.

³ Nevertheless, many pathways to limiting average temperature rises to 1.5°C involve largescale use of technologies, such as carbon capture and storage, that are not yet commercially competitive (IPCC, 2022^[5]).

⁴ A survey on factors contributing to broader adoption of the Global Environment Facility’s (GEF) small grants programme (SGP) results highlighted the particularly important role of a national co-ordinator and steering committee members, as well as having a well-designed country programme strategy, and having interactions between national and sub-national levels.

⁵ For example, establishing an emissions trading system (ETS) is a complex undertaking that would require legislation (e.g. if the ETS is obligatory), regulations (e.g. covering monitoring and reporting provisions), decisions on an appropriate emissions cap (which may need to involve discussions with emitters, as well as knowledge of current mitigation potentials and costs) etc. Putting this in place could take several years after the decision to apply this policy. In contrast, regulations requiring end-of-pipe technologies could be put in place and implemented relatively quickly.

This section unpacks the 2022 CMA decision on the MWP, and highlights initiatives and events both inside and outside the UNFCCC framework that the MWP could learn from or build on in order to achieve its objective. Indeed, there are several such initiatives and events. Given the urgency to enhance mitigation levels, and in order for the MWP to meet its objective, it will be important to ensure that events under the MWP learn from the many years of experience with both global dialogues on mitigation and investment-related events.

2.1. Unpacking the CMA decision on the MWP

The MWP was originally mentioned in the 2021 Glasgow Climate Pact (UNFCCC, 2021^[16]). The 2022 MWP decision taken at the CMA (UNFCCC, 2022^[3]) provides several indications on the aim of the MWP, on how the process of the MWP is to be organised between 2023-2026,⁶ which outputs Parties want it to produce, and which stakeholders to involve in various events. The scope of the MWP is to be “relevant to urgently scaling up ambition and implementation”, and the MWP is to be operationalised via “focused exchange of views, information and ideas”. In terms of modalities, the MWP will result in several outputs (see Table 1). These outputs include at least two dedicated “global dialogues” per year, and “other ... dialogues in conjunction with existing events” at the discretion of the co-chairs (UNFCCC, 2022^[3]). Annual submissions are invited from Parties and non-Parties on the topics “to be discussed under the dialogues”. The MWP co-chairs⁷ will guide the organisation of these global dialogues, with support from the UNFCCC Secretariat, and will choose and communicate the topics of the global dialogues. In April 2023, the UNFCCC Secretariat announced that the dialogues taking place under the MWP in 2023 will focus on accelerating a just energy transition (UNFCCC, 2023^[17]). Yet, many questions still remain regarding the aim, scope, format, and participation of individual dialogues and events.

In addition, the MWP is to include “investment-focused events”. These events will be held “in the margins” of the global dialogues or other in-person or hybrid dialogues and existing events.⁸ The 2022 CMA decision does not invite submissions on the topics to be discussed in these events. These investment-focused events will also be guided by the MWP co-chairs and supported by the Secretariat and the high-level climate champions.⁹

There is significant leeway possible in the scope, focus and format of the mandated MWP-related events, the content of the reports of, presentations to, and participants at these events. Nevertheless, the 2022 CMA MWP decision is clear that the “active participation” of a variety of stakeholders is encouraged in the global dialogues, including non-party stakeholders (NPS). The high-level climate champions have furthermore been mandated to encourage the effective participation of NPS, and NPS will also help to “inform” investment-related events. However, the focus of the investment-focused events, and any link between these events and the global dialogues is not specified in the 2022 CMA MWP decision but will be determined by decisions taken by the MWP co-chairs.

The MWP outputs are scheduled for different (and sometimes not specified) frequencies and will involve different stakeholders. For example, there will be “at least two” global dialogues per year between 2023-26, the UNFCCC secretariat is requested to produce an annual report compiling the individual dialogue reports, and the two co-chairs of the work programme are invited to present the MWP’s annual report to

⁶ The CMA4 decision also indicates that the MWP is likely to continue after 2026.

⁷ Two co-chairs of the MWP will be nominated on 7 March 1, 2023 (and 1 March 2025), for a two-year period.

⁸ COP27 also agreed to establish a “Sharm el Sheikh dialogue on Article 2.1c”, (i.e. making finance flows consistent with the aim of the Paris Agreement) with this dialogue being focused on enhancing understanding.

⁹ The role of the high-level climate champions in these events is not specified further in the 2022 CMA MWP decision.

the annual high-level MRT on pre-2030 ambition. However, the number of “other dialogues” will be “at the discretion of the co-chairs”.

Table 1. Summary of modalities and outputs from the 2022 CMA MWP decision

Category	Text	Comment
Modalities	“ At least two global dialogues shall be held each year as part of the work programme” (para. 8)	There is a lot of experience with dialogues covering different topics, aimed at a variety of stakeholders, and of different formats under the UNFCCC. However, not all such “dialogues” have resulted in two-way exchanges of views. The concrete outcomes associated with such dialogues is unclear.
	“ Other in-person or hybrid dialogues may be held each year in conjunction with existing events, such as the regional climate weeks, at the discretion of the co-chairs of the work programme” (para. 9)	
	“ Investment-focused events , considering the cost of mitigation implementation, with a view to unlocking finance, including for just transitions, overcoming barriers to access to finance and identifying investment opportunities” (para. 11)	There is some experience with high-level investment-focused events involving a sub-set of Parties in the margins of the UNFCCC (e.g. Just Energy Transition Partnerships (JETPs)), as well as with “investor dialogues” and other investment-focused events outside the UNFCCC framework (e.g. Clean Energy Finance and Investment Mobilisation (CEFIM) Investor Dialogues). The aim of investment-focused events, their link to the global dialogues, and the role/participation of relevant actors could usefully be clarified by the MWP co-chairs early on.
Outputs	[request] “ a report on each of the dialogues referred to in paragraphs 8–9” by UNFCCC secretariat, “reflecting discussions held and including a summary, key findings, and opportunities and barriers relevant to the topic” (para.15)	Many different types of summary reports have been developed. Some (e.g. GST Summary Reports of the Technical Dialogues, PR2 summary reports of the Structured Expert Dialogue meetings) include information on key findings, barriers, opportunities and are prepared by co-facilitators of the related dialogues. Others (e.g. Technical Expert Meetings (TEM) Technical papers) compile inputs from several dialogues and/or additional sources of information (e.g. IPCC reports), making it difficult to connect findings to specific dialogues.
	[request] “ an annual report comprising a compilation of the individual dialogue reports” by UNFCCC secretariat for CMA, Subsidiary Body for Scientific and Technological Advice (SBSTA) and Subsidiary Body for Implementation (SBI). (para.15)	There is some experience of annual reports compiling individual dialogue reports for consideration by the subsidiary bodies and CMA (e.g. Glasgow-Sharm el-Sheikh work programme), or as an input for another deliverable (e.g. TEMs inform the Summary for Policymakers).
	[request] SBSTA and SBI to “consider progress, including key findings, opportunities and barriers, in implementing the work programme with a view to recommending a draft decision for consideration and adoption by” the CMA. (para.16)	The request to recommend a draft decision, on an annual basis, and focusing on implementation, is relatively new as a similar request has only been implemented once before (i.e. Glasgow-Sharm el-Sheikh work programme). This request has the potential to raise/maintain the political profile of this topic for the duration of the MWP.
	[invitation] “ a presentation on the annual report” by MWP co-chairs at the annual high-level ministerial round table (MRT) on pre-2030 ambition from 2023 onwards. (para. 17)	Uncertainties remain with regards to the scope, format and duration of the presentation. These parameters will influence its role in helping to scale up mitigation ambition and implementation.

Source: Authors.

The agreed aim of the investment-focused events under the MWP is very broad, encompassing “unlocking finance ...overcoming barriers to access to finance and identifying investment opportunities and actionable solutions” (UNFCCC, 2022^[3]). This could be interpreted as leading to five possible aims for such investment-focused events, ranging from events that may galvanise political buy-in for mitigation investments in specific countries, sectors or activities; events that focus on how to overcome one or more barrier(s); or events that focus on identifying specific investment opportunities (Table 2). The organisers of such events will need to decide which aim(s) to focus specific events on.

Table 2. The 2022 CMA MWP decision provides for a broad range of possible aims for investment-focused events

Aim	Link to MWP decision	Implication for focus
1	"Unlocking finance"	Develop high-level buy-in/support for mitigation-related policies, programmes or activities in specific countries or sectors. Such events could involve leaders (e.g. heads of state, company chief executive officers, heads of financial organisations), would be more strategic/broad and useful for galvanising opinion and support, rather than investment for individual activities.
2	"overcoming barriers" (policy)	Focusing on e.g. identifying common barriers to action and investment in key sectors, show-casing promising regulatory and institutional frameworks to encourage investment to overcome such barriers. This is an important pre-requisite to encouraging investment – but such a focus is likely to result in a significant time lag before leading to action on the ground. Such a focus would be useful for countries where mitigation potential is high, but not yet tapped.
3	"overcoming barriers" (specific activity types, sectors)	This could include disseminating lessons learned or good practices in mobilising or accessing finance for specific activities (including on which stakeholders to engage at what stage in the process). Such a focus would be useful for countries who already have an enabling general policy framework in place and are focusing on increasing investment in specific areas.
4	"overcoming barriers" (access to finance)	Such a focus could be done by show-casing best practices in mobilising finance; tools to structure finance options; processes to design tenders etc. Such a focus could lead to relatively technical discussions, and would need to involve public financial institutions and private sector investors, as well as regulators and possible project participants.
5	"identifying specific investment opportunities"	Such an event could bring together different communities (e.g. project-level developers, public financial institutions, private sector investors) that are needed in order to match specific funding needs for sectors/activity with potential funders.

Sources: Authors.

2.2. Experience under the UNFCCC framework relevant to requested MWP outputs

There is a lot of experience within the UNFCCC framework in producing some of the outputs mandated by the MWP decision from CMA (e.g. global dialogues, summary reports). The MWP could usefully learn lessons from previous or current dialogues (e.g. Technical Expert Meetings under the Technical Examination Process, Talanoa Dialogue, first Global Stocktake) to facilitate activities organised under the MWP in meeting its aims. As highlighted in Table 3, previous dialogues and other events¹⁰ have had a variety of aims and mandates; have involved different discussion formats, and have had a variety of inputs and outputs. In addition, these different events have been carried out at various frequencies over different time periods. In terms of participation, actors from the financial sector and/or the UNFCCC financial mechanism have explicitly been included in some discussions (e.g. Climate Technology Centre and Network (CTCN)), but not in others (e.g. MRT).

¹⁰ For example, the Talanoa Dialogue, the Global Stocktake, Structured Expert Dialogue, Technical Expert Meetings, Facilitative Sharing of Views, Multilateral Assessments, activities conducted in the framework of the Climate Technology Centre and Network, and the High-Level Ministerial Roundtable on pre-2030 ambition.

Table 3. Summary of information of selected activities' mandates, focus of discussions, inputs and outputs

	TEM ¹¹	Talanoa dialogue	GST	GlaSS work programme	CTCN ¹²	High-level MRT	MWP
Mandate							
To take stock of progress towards Paris Agreement goal(s)		X	X	X			
To scale-up mitigation ambition and implementation							X
To promote voluntary co-operation on concrete mitigation actions	X						(X)
To accelerate the development and transfer of climate technologies					X		
To inform NDCs		X	X	X			
Unspecified						X	
Format of discussions							
Formal presentations						X	TBC
Dialogues	X	X	X	X		X	X
Pre-defined questions		X	X			X	TBC
Informal exchange of views		X	X		X		TBC
Evolution potential of the discussion framework							
Evolution of discussion format over time	X		X			X	TBC
Inputs							
Formal presentations						X	
Online submissions		X	X	X		X	X
Dialogues	X	X	X	X		X	X
Informal exchange of views			X		X		
Outputs of the process							
Individual dialogue report	X	X	X			X	X
Annual compilation of individual dialogue reports	X			X			X
Synthesis report	X	X	X		X		
Draft decision			X	X			X
Presentation of conclusions to a high-level event							X

Note: The content of the table is based on the relevant UNFCCC mandates for these activities. For the MWP, this means it is based on decision 4/CMA.4, which highlights that the MWP shall “be informed by” NDCs (UNFCCC, 2022^[3]). It is of course possible that the MWP also informs NDCs, but this aspect is not explicitly mentioned in decision 4/CMA.4.

Source: Authors.

A key difference between the MWP and other dialogues or workshops held under the UNFCCC is that there is a recognised urgency in relation to its outcome. This expressed urgency is accompanied by an explicit request to SBSTA to follow up each year, as well as the mandate for SBSTA to “consider progress, including key findings, opportunities and barriers, in implementing the work programme with a view to recommending a draft decision” for the CMA (UNFCCC, 2022^[3]). A dialogue under the UNFCCC has only

¹¹ The Technical Expert Meetings (TEMs) take place under the UNFCCC Technical Examination Process. They aim to bring together a broad range of experts to facilitate the identification of policy options, technologies or practices that have high mitigation potential.

¹² Climate Technology Centre and Network is a network of organisations operated by a co-ordinating entity that aims to facilitate and promote the transfer of environmentally sound technologies by providing TA, disseminating information and fostering collaboration between a broad range of actors.

been endorsed once with a similar request and mandate (i.e. Glasgow-Sharm el-Sheikh work programme on the global goal on adaptation).¹³ The explicit planning for yearly CMA decisions on the MWP provides significant leeway for Parties to request specific actions or outcomes, to modify the process (and thus allow for learning by doing over the period of the MWP), and/or to provide guidance for future MWP-related events.

Another key difference between the MWP and other dialogues established under the UNFCCC is the explicit link to “investment-focused events” (discussed further below). Any investment-focused event held under the auspices of the UNFCCC will have the benefit of being open to all UNFCCC Parties. There have been discussions under the UNFCCC for decades on the need for, and goals relating to the provision/mobilisation of climate finance, however such goals were not explicitly linked to specific events. Furthermore, goals that were agreed at COP16 for “fast start finance” and at COP21 to provide and mobilise USD 100 billion (annually between 2020-2025) have been at a collective level, rather than targeted to specific countries, sectors or activities. Other means used under the UNFCCC to raise funds for specific issues, such as the Clean Development Mechanism (CDM) “share of proceeds” directed towards the adaptation fund, have led to limited funds. In addition, the Paris Agreement’s Article 2.1c focuses on the use of finance, rather than on the mobilisation of finance.¹⁴

More recently, there have been developments in the margins of UNFCCC events that have led to a variety of finance-related targets or pledges by a variety of different stakeholders (e.g. (UN Climate Change High-Level Champions, 2022_[18])¹⁵). Some of the associated activities undertaken under these developments could be relevant for activities to be planned under the MWP. For example, the Glasgow Financial Alliance for Net Zero (GFANZ) aims to galvanise the investment in the financial sector needed to get to net zero GHG emissions and brings together a variety of stakeholders¹⁶ relevant to identifying and mobilising climate-related investments. One of GFANZ’s specific aims is to mobilise finance in support of net-zero transitions in “emerging markets and developing economies” by fostering public-private co-operation and country-focused financing (GFANZ, 2022_[19]). The Global Forest Finance Pledge (UNFCCC, 2021_[20]) highlights an “intention to provide” USD 12 billion for forest-related finance (mitigation and adaptation) by a selected number of donor governments.

High-level events in the margins of COPs or elsewhere (e.g. G20) have also led to pledges for mitigation-related finance. For example, some recent pledges have involved high-level public-sector actors and focused on specific countries – such as the Just Energy Transition Partnerships (JETPs, see Box 1 below). These pledges have highlighted the importance of events that convene high-level participants (e.g. Heads of States, ministers, UN special envoys) to help build momentum that can mobilise mitigation finance.

¹³ This is stronger language than for other dialogues established under the UNFCCC. For example, the Sharm el-Sheikh four-year work programme on agriculture, that was established at the same time as the MWP, aims at “sharing information on projects, initiatives and policies for increasing opportunities for implementation”.

¹⁴ The CMA4 decided to launch the “Sharm el Sheikh dialogue” on Article 2.1c (UNFCCC, 2022_[176]). However, the focus of this dialogue is on exchanging views and enhancing understanding, rather than investment per se.

¹⁵ Prior to COP27, five regional fora were jointly organised by the COP27 Presidency, the five United Nations Regional Commissions, and the UN Climate Change High-Level Champions. These fora enabled the identification of climate-related projects with a double purpose: to illustrate that there is an existing pipeline of climate initiatives ready for investment, and to facilitate financial matchmaking. Selected projects are highlighted in the Climate Champions’ Extended Compendium of Climate-Related Initiatives (UN Climate Change High-Level Champions, 2022_[18]), and targeted discussions were organised with selected investors during the finance day at COP27.

¹⁶ GFANZ is organised around 7 sector-specific alliances, each sector-specific alliance being oriented towards a specific stakeholder type. As both the Net-Zero Asset Owner Alliance and the Paris Aligned Asset Owners are directed towards assets owner, there are in total 6 different types of stakeholders involved: assets managers, assets owners, banks, financial services providers, insurers and investment consultants.

Box 1. High-level engagement to mobilise finance

There is recent experience with “unlocking finance, including for just transitions” that could potentially be used as a basis for the design of one or more of the investment-focused events that are held in the margins of MWP dialogues. For example, both the JETP¹⁷ (G7, 2022^[21]) and Egypt’s Nexus on Water, Food and Energy (NWFE) processes¹⁸ (EBRD, 2022^[22]) included high-level (heads of state) dialogue by a group of donors and a selected number of potential recipients to agree large levels of funding. The JETP process also includes pre-defined milestones in terms of finance pledges, associated outputs such as investment plans (UKCOP26, 2022^[23]) and progress reports. Funding secured in the framework of these two processes is to be delivered via a variety of financial instruments (mainly loans, but also debt swaps for NWFE (Reuters, 2022^[24])). As of May 2023, JETPs have only been agreed for three middle income countries (MICs), with discussions underway for a further two MICs.

For example, a JETP was announced at COP26 (November 2021) by the Republic of South Africa (RSA), the United Kingdom, the United States, France, Germany and the EU (UKCOP26, 2021^[25]). This JETP was developed to support the RSA’s transition to a low-carbon economy, and in particular to accelerate the decarbonisation of its GHG-intensive coal-fired electricity system (IEA, 2022^[26]) - while enabling a just transition. The NWFE aims to be a transformational strategy that helps Egypt implement its climate mitigation and adaptation strategy by leveraging its current global partners, the private sector and by using innovative finance tools (e.g. blended finance). Both the JETPs and NWFE projects have high political profiles (EU, Egypt and EBRD, 2022^[27]) (COP27 Presidency, 2022^[28]), with the JETPs being led by the leaders of the member administrations.

The initial aim of the JETP in RSA was to mobilise USD 8.5 billion over three to five years (UKCOP26, 2021^[25]). Yet, this only represents a small part of the USD 98 billion investment needed over a five-year period as outlined in RSA’s JETP investment plan. Pledges reaching this aim were met after one year (UKCOP26, 2022^[23]) although it is unclear how much of this finance is new/mobilised. Although finance will be provided via a variety of instruments, the large majority will be channelled via loans (mainly concessional loans, but also commercial loans), with some guarantees and grants/technical assistance.

Subsequently, JETPs have been agreed for other countries. For example, the JETPs for Indonesia and Viet Nam were agreed in November 2022 and December 2022, respectively (European Commission, 2022^[29]), (European Commission, 2022^[30]). The potential mitigation impact of these JETPs could be significant. For example, the Indonesian JETP plans to bring forward the peaking of power sector emissions to 2030 from 2037 (European Commission, 2022^[29]).

However, while engagement by leaders in a JETP process is crucial to demonstrate political will and to unlock large volumes of finance, it is not always sufficient to lead to quick agreements or actions. For example, the RSA JETP investment plan was only published 12 months after the announcement of the partnership. An interest in developing JETPs with India and Senegal was announced at the G7 in June 2022 (G7, 2022^[31]) but has not yet been agreed as of May 2023.

Source: Authors.

¹⁷ The JETP is a financial mechanism aiming to support heavily coal-dependent countries in a just energy transition away from coal, following a self-defined pathway. Donors and contributions vary across JETPs, and includes Canada, Denmark, France, Germany, Italy, Japan, Norway, the EU, the UK, the US and GFANZ Working Group members.

¹⁸ The NWFE is comprised of nine priority projects under three pillars (Water, Food and Energy). The goal is to mobilise both the public and the private sector to support these projects using the broadest range of financial tools available, and through these projects accelerate the implementation of Egypt’s NDC.

2.3. Relevant experience outside the UNFCCC framework relating to “investment-focused events”

A key aspect of the MWP is that it includes both a “focused exchange of views” on mitigation, and also provides for “investment-focused events” which are to be held on the margin of the Global Dialogues or other in-person or hybrid dialogues and existing events. Identifying the specific aim and focus of such investment-focused events, and if/how these events link to the topics discussed at the global dialogue, will be decided by the MWP co-chairs. These decisions will have implications for the outcome of such events, how quickly these events could lead to action on the ground, as well as who would need to be involved in the events, and when and where such events could most usefully be held.

There are many different types of barriers to investments, and these barriers can vary by country, sector and individual activity. Overcoming these different barriers will need to involve a multitude of stakeholders, with solutions tailored to specific circumstances. In order for the MWP to “urgently scale up” mitigation ambition and implementation, it may be worthwhile for the events under the MWP to encompass a broad set of activities that aim at overcoming barriers across the range of steps needed to get a mitigation activity off the ground.

Many investment-related programmes, events and other activities have been developed and are currently ongoing outside the UNFCCC framework, and the number of such activities has grown rapidly over the last few years. Encouraging increased investment into specific countries or sectors involves a wide variety of analyses, initiatives and events that could fit under one or more of the five broad aims this paper has identified as possible aims of the investment-focused events under the MWP (Table 2). In particular, these events cover a range of issues that are much broader than just “matchmaking” between potential mitigation activities and potential funders of those mitigation activities (see e.g., Figure 2). Indeed, there is a large and growing literature, as well as a large number of associated events, on policy suggestions for governments on the regulatory frameworks that can help to encourage investment (e.g. (OECD, 2020^[32])) including investment that is focused on sustainable development (e.g. (UNCTAD, 2015^[33])) or climate in particular (e.g. (UNEP FI, 2022^[34]), (OECD, n.d.^[35])). There has also been a lot of work, and associated events, relating to how to most effectively mobilise/blend public and private finance (e.g. (Net Zero Asset Owner Alliance, 2021^[36])), and how to reduce levels of financial risks etc (e.g. (OECD, 2021^[37])).

The different programmes and events focused on investment-related issues, and held outside the UNFCCC framework, have a variety of aims and involve a wide range of different groups of stakeholders (Table 11). These events have focused on one or more of the following aims:

- Identifying the enabling environment and institutional arrangements that need to be put in place in order to encourage investment (in general, for a specific sector and/or for a specific activity type);
- Identifying countries’ specific financial and investment needs in order to develop and implement this enabling environment;
- Mobilising/accelerating finance or pledges for general mitigation-related programmes (e.g. JETP), developing and implementing mitigation strategies and policies (e.g. to implement net zero pledges), in specific sectors or sub-sectors, or for specific mitigation activities;
- Identifying relevant stakeholders and developing the partnerships needed to finance or implement mitigation programmes, policies and activities;
- Developing tools or templates needed along the mitigation project lifecycle (e.g. on project development, project pipeline development, how to develop partnerships for blended finance, how to structure finance options, etc.);
- Disseminating best practices and lessons learned associated with financing, or accessing finance for, specific mitigation programmes, policies and activities.

In order to ensure that the investment-focused events organised under the MWP meet their aims, it will be important to agree on what such aim(s) are. Examining the scope, scale (e.g., sub-national, national, regional, international), topics and structure of investment-related events held outside the UNFCCC framework could potentially provide useful indications for the scope, scale, topics and/or structure of the investment-focused events to be developed under the MWP framework. It could also provide useful indications of the relevant stakeholders to include in these events and thus help to ensure that investment-focused events held under the MWP build on (rather than duplicate) relevant experience elsewhere.

Table 4. Selected activities, outputs outside the UNFCCC framework relating to investment-focused events

Focus of event, initiative	MWP aim(s) (Table 2)?	Examples
1. Identifying characteristics of a supportive regulatory, legislative framework	2	Supportive policy framework to drive the rate and direction of innovation e.g. (WIPO, 2022 ^[38]), (World Bank, 2020 ^[39]). OECD Policy Framework for Investment and its sectoral adaptations (i.e., Clean Energy Infrastructure) (OECD, 2015 ^[40]). Work on promoting carbon pricing (Coalition of Finance Ministers for Climate Action, n.d. ^[41]). Support of the green bond market through the development of a certification framework (Climate Bonds Initiative, 2021 ^[42]).
2. Developing a supportive framework at relevant level	3	World Bank Group (WBG) Country Climate and Development reports and NDC support facility (World Bank, n.d. ^[43]) (World Bank Group, 2021 ^[44]), CEFIM programme that i.a. recommends a roadmap for policies and regulations needed to mobilise finance for clean energy projects (OECD, 2022 ^[45]). Lessons learned from linking (Partnership for Market Readiness, 2014 ^[46]) and implementing (IEA, 2020 ^[47]) Emission Trading Systems.
3. Identifying capacity building (CB), investment needs, priorities	3	Assessments at national level (e.g. (Climate Technology Centre & Network, 2022 ^[48])), for specific groups (e.g. (Global Green Growth Institute, 2019 ^[49]), by Development Finance Institutions (DFIs), CEFIM policy reviews and roadmaps Systematic Country Diagnostic (World Bank, n.d. ^[50]).
4. Mobilising resources for feasibility studies, Technical Assistance (TA), CB, etc.	4	European Investment Bank, Proparco and many other organisations (e.g. (European Commission, n.d. ^[51])) provide funding i.a. for feasibility studies and TA for wind power projects (AFD, 2018 ^[52]) or blended finance (Convergence, n.d. ^[53]). TA can also be provided directly by the organisation (e.g., CTCN under its mandate (Climate Technology Centre & Network, n.d. ^[54])). Project preparation funds (AFD, n.d. ^[55]) finance feasibility studies and TA to support future investment projects, feasibility studies in the framework of the Japanese government Joint Crediting Mechanism (Japanese Ministry of the Environment, 2016 ^[56]), funding for the design stage of blended finance projects (i.e. feasibility studies, proof of concept) (Convergence, n.d. ^[53]).
5.,6. Develop tools relevant to establishing feasibility studies for specific sectors, activity types	3, 4	Industry bodies (e.g. (Renewables First, n.d. ^[57]), Industrial energy feasibility study (BCHydro, 2014 ^[58]).
7. Generate political momentum/finance pledges	1	JETP processes, specific conferences e.g., LDC5 (March 2023) includes an aim of raising new pledges of support.
8. Developing partnerships for specific sectors, activities	3	Green Climate Funds' private investment for climate conference aims i.a. to develop new partnerships (Green Climate Fund, 2022 ^[59]), WBG's "Maximising finance for development" (World Bank, n.d. ^[60]), EU's Investors Dialogue on Energy (European Commission, n.d. ^[51]), investment promotion roundtable, e.g. (MIGA, 2022 ^[61]), Increasing urban climate finance (FMDV, 2021 ^[62]), accelerating Sustainable Development Goals (SDGs)-relevant business solutions (UNDP Sustainable Finance Hub, n.d. ^[63]).
9. Developing bankable project/activity proposals	4	Dutch Fund for Climate and Development's Origination Facility identifies and supports the early stage of climate adaptation and mitigation projects that are likely to be bankable, Nationally Appropriate Mitigation Action (NAMA) financing facility (NAMA Facility, 2022 ^[64]), Association of Southeast Asian Nations (ASEAN) Catalytic Green Finance Facility (ADB, 2022 ^[65]).
10., 11., 12. Support development of financial instruments and markets, develop tools, templates relevant to structuring finance, running tenders, applying for funding	3, 4	WBG's "Scaling Solar" programme helps with tendering process, developing templates etc. (IFC, n.d. ^[66]). High-Level Champions financing factsheet guides projects developers in gathering relevant information necessary to engage a discussion with potential funders (UN High-Level Climate Champions, 2022 ^[67]). Blended Finance Guidance (OECD, 2021 ^[68]). Staff Climate Note highlighting opportunities and challenges related to specific financing instruments (IMF, 2022 ^[69]).

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13. Matchmaking between funders/participants for a specific activity	4	UNDP SDG investor platform, “designed to enable investors to make informed decisions on where to allocate capital” (UNDP SDG Investor Platform, n.d. ^[70]), Japan External Trade Organisation (JETRO) seminars and meetings with governments, private sector, business, industry (METI, 2021 ^[71]). CTCN Regional Forums gather network members (NDE ¹⁹ , private sector, non-Governmental organisations (NGOs)) and representatives of financial institutions; CEFIM Investor dialogues, Compendium of climate related initiatives (UN RCNYO, 2022 ^[72]).
14. Develop “lessons learned” “best practices” for planning/implementing a specific activity	3, 4	Evaluations of specific climate projects, e.g. KfW (KfW Development Bank, n.d. ^[73]), or programmes, e.g. (GEF, 2021 ^[74]) (including on replication and scaling up), or meta analyses, e.g. (Cui et al., 2019 ^[75]), Climate champions’ report (UN Climate Change High-Level Champions, 2022 ^[76]).
15. Develop “how to” for monitoring, evaluation, learning for specific activity	1, 3	Joint initiative of World Economic Forum and OECD to develop ‘A How-To Guide for Blended Finance’ (OECD, 2015 ^[77]). Framework for independent ex ante assessments of additionality and development outcomes of the Bank’s Private Sector Operations (AfDB, 2022 ^[78]).
16.,17. Identify, share best practice	2, 3, 4, 5	C40 NDC ambition handbook (C40, 2022 ^[79]) highlights both high impact actions, as well as actions to avoid, to increase mitigation at the city level, IEA workshop (IEA, 2014 ^[80]) on best practices to support low-carbon energy and climate technologies’ deployment, Common Principles for Climate Mitigation Finance Tracking of the Joint Climate Finance Tracking Group of Multilateral Development Banks (MDBs) and International Development Finance Club (IDFC) (World Bank, 2015 ^[81]), CEFIM peer learning events (OECD, 2022 ^[82]), Guiding principles (African Financial Alliance on Climate Change, n.d. ^[83]).

Source: Authors.

¹⁹ Countries are to select a Nationally Designated Entity (NDE) to coordinate their action in the CTCN network. NDEs are mainly Ministries but can sometimes be government sections or agencies (CTCN, 2014^[203]).

Assessing the impact of such events on the uptake of mitigation action, and in which timeframe, could also be helpful for MWP co-chairs – and a possible area of future work. In addition, identifying which investment-focused events are upcoming, and with what focus, could help MWP co-chairs decide on where useful investment-related events under the MWP could be held. Relevant lessons for investment-focused events under the MWP could include, e.g.:

- Identifying what mitigation activities have attracted investment in the past, and/or could mobilise finance from private sector actors;
- Identifying the institutional/organisational aspects of planning and implementing such mitigation activities that could be replicable to other activity contexts; (e.g. capacity building, institutional aspects, how to structure stakeholder engagement and which type of stakeholders to include in such engagement, etc.);
- Identifying an appropriate level of aggregation or disaggregation for discussions (e.g. it may be that discussions of some aspects, such as accessing public climate finance from source X or Y, or on how to blend public and private finance are relatively broad, whereas information on accessing finance for activity Z or for sector S may have specific technical and/or financing characteristics that they would benefit from a stand-alone discussion);
- Identifying ranges of uncertainty that may affect the performance and therefore funding attractiveness of a specific activity (for example, the attractiveness of wind/solar systems is very site-specific, and the costs can vary widely depending on the specific technology choice)²⁰;
- Identifying which aspects of mobilising and structuring finance for mitigation activities are replicable (e.g. the role of blended finance, de-risking).

²⁰ For example, the cost of offshore wind is influenced by whether the turbines would be floating, or attached to the seabed (OECD, 2022^[45]).

3. Options for the aim, scope, focus, format and participation of events of the MWP

There are different design options available for the mandated outputs of the MWP. Given the urgency of the challenge, it will be important to shape these outputs in such a way that they can drive rapid mitigation action on the ground. This section highlights some ideas and options for the aim, scope, focus, format of, and participation in MWP-mandated events.

3.1. Global dialogues and other in-person or hybrid dialogues

There are several design options that could influence the outcomes of the global dialogues and of the other in-person or hybrid dialogues (hereinafter referred to as “other dialogues”),²¹ notably their ability to drive the implementation of urgent mitigation action. Based on the large experience (including in the UNFCCC context) with conducting global dialogues highlighted in section 2. , these design options relate to: the aim, scope, focus, format and participation. Some of these options are interconnected.

Any design option would need to respect the modalities outlined under paragraph 10 of the 2022 CMA MWP decision, as outlined in section 2. This section outlines some ideas and implications of possible design options for the global dialogues that the organisers of such dialogues (i.e. the UNFCCC secretariat under the guidance of the MWP co-chairs, as per paragraph 10 – hereinafter referred to as “the organisers”) might find useful.

3.1.1. Aim, scope and focus

The aim, scope and focus of the global dialogues are not defined in the 2022 CMA MWP decision, but once agreed, they will impact the format and level of participation in MWP global dialogues. Hence, a crucial first issue for the organisers (the UNFCCC secretariat under the guidance of the MWP co-chairs) is to determine these aspects. Although the focus for MWP dialogues in 2023 have been announced (accelerating a just energy transition), questions still remain regarding the aim and scope of individual dialogues. Questions that could help the organisers with determining these are laid out in Table 5. One important issue relates to the timing of the dialogues along the year. It would be helpful if these dialogues were scheduled in a way that provides the MWP co-chairs enough time to prepare a presentation summary to inform discussions at the MRT, as well as to finalise the annual report at a timing that facilitates preparation by Parties and NPS for the MRT.

²¹ For ease of reading, hereinafter the global dialogues and the “other dialogues” are referred to as “the global dialogues”.

Table 5. Key questions for the organisers to consider regarding the aim and scope of global dialogues under the MWP

Key questions	Comments
Are the global dialogues aimed to link with the investment-focused events organised under the MWP?	The 2022 CMA MWP decision is silent on whether the annual topics to be discussed at each dialogue in that year (paragraph 13) are to be linked somehow with the proposed investment-focused events (paragraph 11). For instance, if the topic of the global dialogues in a given year is to tackle urgent mitigation in sector/sub-sector X, the co-chairs could plan to focus the investment-focused events of that year on overcoming barriers to access financing in the sector/sub-sector X. Establishing such a link could be helpful to increase the chances that the MWP delivers on its mandate to “urgently scale up mitigation ambition and implementation”.
Are the global dialogues aimed at being a series of one-off events, or are they going to be designed to build on each other?	The MWP co-chairs are appointed for 2 years and will decide on and communicate the topics to be discussed at each dialogue in that year. This means that co-chairs could plan for at least four different global dialogues, and could decide to organise them as a continuum series of events (i.e. all focused on related topics within the same sector), as a series of events building on each other (e.g. focused on the same topics but narrowing the focus of discussions one event after another) or several one-off events (e.g. each dialogue focused on a different topic / sector). It was announced in April 2023 that the global dialogues in 2023 will focus on “accelerating [a] just energy transition”.
Are there existing initiatives that have similar aims as the MWP global dialogues? If so, what sort of links could be made to ensure synergies rather than duplication?	Organisers could map out existing initiatives that have similar aims as the MWP global dialogues to explore if synergies could be built. For example, the “Race to Zero” includes a criterion around “persuading” peers, stakeholders and governments to align with 1.5°C pathways (UNFCCC, 2022 ^[84]). Other initiatives, such as the Breakthrough Agenda, are also focused on supporting stronger international collaboration to drive faster reductions in global greenhouse gas emissions (IEA, 2022 ^[85]) (see more in section 4.4).
Who is the target audience (i.e. implementer / decision maker for mitigation policies / projects) for the specific topic of the global dialogue being organised?	To ensure “focused discussions”, organisers will need to be clear up front about who the target audience for a global dialogue is, and target speakers who can identify relevant actions or processes that are within the purview of the target audience, noting that the target audience will depend also on the selection of the topic for individual dialogues and events.
Who has the expertise to provide relevant inputs to participate in the global dialogues, and should there be a nomination process for active roles in the dialogues?	For the global dialogues to highlight the most relevant experiences, it may be useful to organise a selection process for potential participants, especially among NPS (e.g. via submissions, or via requesting potential participants to fill in a form highlighting their qualifications for the event – as is done for IPCC workshops or through the GST technical dialogues managed by the high-level champions).
Are there already-planned multilateral events outside the UNFCCC where many of the potential participants / topic experts will be present? If so, could the global dialogues be organised back-to-back or in parallel with these events? What links could be possible with these other multilateral events?	Identify if the MWP global dialogues could be organised in parallel or back-to-back with other multilateral events, as this could allow to broaden participation – e.g. increase the chances to attract high-level participation as well as a more technical participation. For instance, the first MWP global dialogue and investment-focused event in 2023 will be held in conjunction with SB58 in June 2023 (UNFCCC, 2023 ^[17]). If the organisers decide to hold more than two global dialogues in 2023, this could mean looking towards SB59 and COP28, but also beyond these and at other multilateral events such as the Clean Energy Ministerial, the UN Secretary General’s 2023 Climate Ambition Summit, the G20 Summit, or the Regional Climate Weeks.
How can the timing of the dialogues be arranged in a way to facilitate a representative presentation from the MWP co-chairs at the annual high-level MRT on pre-2030 ambition?	The 2022 CMA MWP decision invites the MWP co-chairs to make a presentation on the annual MWP report at the MRT. It is important that the timing of the dialogues along the year are arranged in a way that allows the MWP co-chairs to have enough time to prepare a meaningful presentation to inform discussions at the MRT, as invited by paragraph 17 of the MWP CMA decision.

Note: By “organisers” of the global dialogues it is meant the UNFCCC secretariat under the guidance of the MWP co-chairs.

Source: Authors.

Regarding the focus, paragraph 13 of the 2022 CMA MWP decision provides that the co-chairs will decide on and communicate the topics to be discussed at each dialogue in that year by every 1 March. As mentioned above, the focus for the 2023 dialogues is on accelerating a just energy transition. The determination of the focus of events will help the organisers define the focus of individual global dialogues, and could be informed by the answers to the framing questions above.

The choice by MWP co-chairs on the yearly topics (focus) for the global dialogues provides an opportunity to discuss priority mitigation activities for the year. Co-chairs are given the opportunity to make the choice of the topics, informed by Party submissions, and may find useful to base this choice on a multi-criteria assessment. Ideas on criteria that could be used to inform this choice are presented in Table 6.

Table 6. Examples of possible criteria for the selection of the yearly topics of the MWP global dialogues

Criterion	Comment
High mitigation potential to reduce emissions rapidly	The mitigation potential for a specific sector / sub-sector to reduce emissions rapidly is the backbone of the MWP.
High potential for a rapid scale-up and/or replication	The potential for scaling up mitigation in the specific sector / sub-sector is essential for a rapid reduction of emissions, e.g. if the introduction of a specific policy can drive down costs for a specific technology for a rapid uptake.
Availability of best practices and proven success of measures and policies	Best practices and examples of successful policies that have been applied in certain countries could inspire other countries to test the same or a similar route; given the urgency of the problem, proven success is also essential.
Reduction of risk of carbon lock-in and stranded assets	Certain measures could temporarily reduce emissions against a counterfactual baseline, but lock-in countries to still high-emissions trajectories in the longer term due to stranded assets. The MWP could focus on solutions that minimise this effect.
High potential for sustainable development co-benefits impact	For instance, whether the proposed topic can unlock other co-benefits that go beyond pure mitigation, such as synergies with other SDGs.
Considerations of priority commitments from previous CMA decisions	Considering priority commitments from previous CMA decisions could also help guide the topics selection by the co-chairs, as selecting a topic that was identified as a priority in previous CMA decisions would maximise the chances of acceptance and adoption for implementation among Parties and CMA.

Source: Authors.

One of the key decisions that the MWP co-chairs will need to make is on the focus of individual global dialogues. In particular, some of the Party and NPS submissions include broad themes, such as “just transition”,²² “investment and financing”,²³ “energy transition”²⁴ or “aspects relating to fossil fuels phase-

²² E.g. suggested (in various forms) by (AILAC, 2023_[179]) (Bangladesh, 2023_[180]) (Fossil Fuel Non-Proliferation Treaty Initiative, 2023_[181]) (High-Level Champions, 2023_[198]) (Home of Sibuyan Island Peoples, 2023_[182]) (India Water Foundation, 2023_[183]) (Indonesia, 2023_[194]) (International Network for Sustainable Energy, 2023_[184]) (Japan, 2023_[196]) (Russia, 2023_[185]) (South Africa, 2023_[186]) (Sweden and the EU on behalf of the EU and its Member States, 2023_[195]) (UK, 2023_[197]) (Universidad Politécnica de Cataluña, 2023_[187]) (WWF, 2023_[188]).

²³ E.g. suggested (in various forms) by (AILAC, 2023_[179]) (Bangladesh, 2023_[180]) (China on behalf of LMDC, 2023_[189]) (Climate Action Network International, 2023_[190]) (High-Level Champions, 2023_[198]) (Home of Sibuyan Island Peoples, 2023_[182]) (India Water Foundation, 2023_[183]) (Indonesia, 2023_[194]) (South Africa, 2023_[186]) (Japan, 2023_[196]) (Sweden and the EU on behalf of the EU and its Member States, 2023_[195]) (UK, 2023_[197]) (United States, 2023_[191]) (WWF, 2023_[188]).

²⁴ E.g. suggested (in various forms) by (Switzerland on behalf of Georgia, Liechtenstein, Monaco, and Switzerland, 2023_[199]) (Republic of Senegal on behalf of the Least Developed Countries Group (LDCs), 2023_[201]) (Indonesia, 2023_[194]) (Sweden and the EU on behalf of the EU and its Member States, 2023_[195]) (UK, 2023_[197]) (Japan, 2023_[196]) (IRENA, 2023_[200]) (WWF, 2023_[188]) (Russia, 2023_[185]) (United States, 2023_[191]) (Norway, 2023_[202]).

out”.²⁵ While these are certainly important topics to be addressed and might be suited as starting points for subsequent more in-depth discussions, some of these formulations are too broad to allow “focused” exchanges that could lead to urgent implementation of mitigation action on the ground. Therefore, in order to generate focused discussions, it may be worthwhile to narrow down the scope of discussions. However, if the scope of dialogues is too narrow, the potential for scaling up will be limited. An exploration of options for the selection of the focus of the MWP global dialogues are outlined in Table 7.

Table 7. Options for the focus of global dialogues

Options	Scope	Examples	Opportunities	Risks
Focus on a specific sector	Broad	“Accelerating the energy transition”; Decarbonising the power sector, transport sector, etc.	Identifying a broad, inclusive, focus for the first dialogue of the year may help to build trust amongst Parties and NPS. Bringing together stakeholders from a specific sector could help map out where the largest mitigation opportunities are and thereby where to target efforts.	This may lead to broad assessments, and non-focused dialogues that risk not producing practical outcomes that could drive urgent mitigation.
Focus on a cross-sectoral issue	Broad	Enhance co-ordination on mitigation projects between national and sub-national governments, or governments and NPS.	A broad theme could be perceived as inclusive, enhance exchange of views and build trust among Parties and NPS.	A broad scope may lead to the dialogues not being “focused” and not leading to outcomes that could drive urgent mitigation. Focusing on cross-sectoral issues might complicate identifying the most appropriate stakeholders.
Focus on a specific sub-sector	Narrow	Methane reduction from oil production; reduced deforestation; etc.	Bringing together stakeholders from a specific sub-sector could help focus discussions on practical solutions.	Selecting a specific sub-sector of relevance for many Parties might be challenging.
Focus on a specific theme	Narrow	Legislative, regulatory or institutional frameworks that have successfully been used to facilitate deployment of technologies or systems to reduce emissions of [X] in sector [Y].	Focusing on a specific theme could facilitate a “focused exchange of views” and in-depth discussions at the global dialogues.	If the focus is too narrow, discussions may only be of relevance to a small sub-set of countries and there might be limited experience to share.

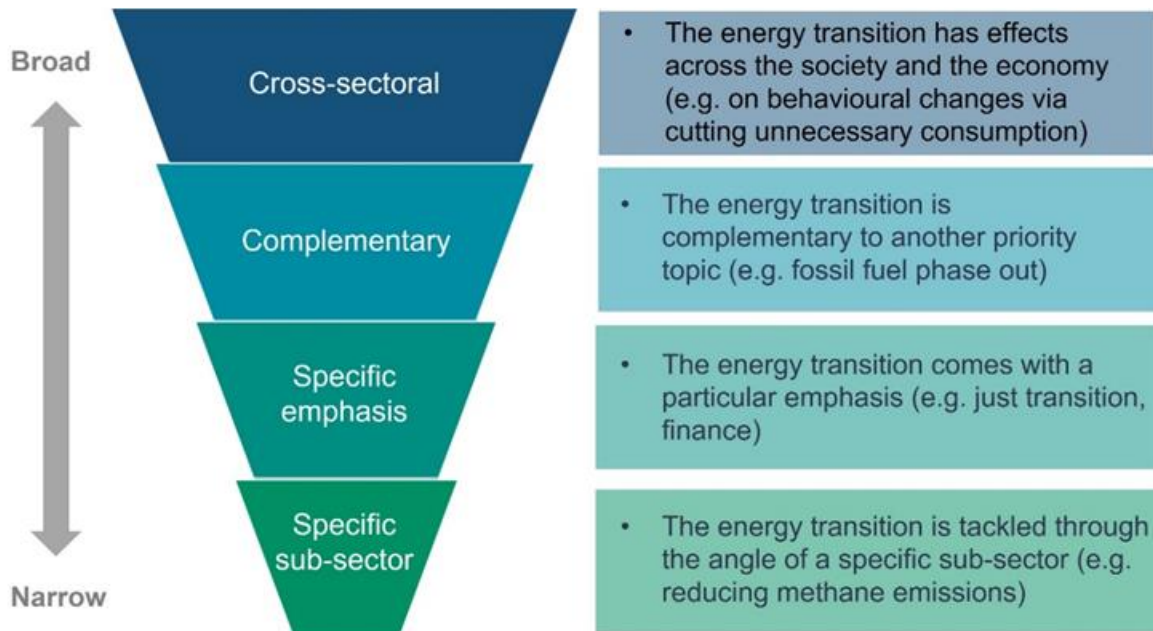
Source: Authors.

Considering the chosen focus for the 2023 dialogues (accelerating a just energy transition) (UNFCCC, 2023_[17]), and following Parties’, observers’ and other NPS’ view on this focus in their submissions, it is clear that this focus could encompass multiple topics. Although the topic of energy transition can be found across many submissions, there is no consensus on what exactly this entails. As highlighted in Table 7 above, a broader or narrower focus can have different implications. Some submissions portray energy transition as a broad, all-encompassing topic. If the Global Dialogues were to reflect this, they could encompass cross-sectoral discussions around measures beyond the energy sector (e.g. implications for electrification of the transportation sector, implications for fossil fuel phase-out). Other submissions place a special emphasis on individual elements of an energy transition (e.g. finance or the just transition component). Narrower approaches suggested by some submissions would lead to Global Dialogues focusing on sub-components, focusing either on a specific energy type (e.g. nuclear); an emissions type (e.g. methane emissions from the energy sector); energy used for a certain purpose (e.g. cooking); power generation; technological energy solutions (i.e. technology transfer, innovation); legislative or regulatory

²⁵ E.g. suggested (in various forms) by (AILAC, 2023_[179]) (Climate Action Network International, 2023_[190]) (Climate Analytics, 2023_[192]) (E3G, 2023_[193]) (Fossil Fuel Non-Proliferation Treaty Initiative, 2023_[181]) (Home of Sibuyan Island Peoples, 2023_[182]) (Indonesia, 2023_[194]) (International Network for Sustainable Energy, 2023_[184]) (Sweden and the EU on behalf of the EU and its Member States, 2023_[195]) (UK, 2023_[197]) (WWF, 2023_[188])

aspects. Figure 1 below outlines the breadth of different focus options with regards to energy transition in MWP submissions.

Figure 1. Overview of the different ways of including the energy transition topic in MWP submissions



Source: Authors based on MWP submissions

3.1.2. Format

The format of such dialogues can influence the quality and quantity of information exchange (i.e. exchange of information between participants and speakers) and the level of participation. One of the CMA mandates is that the dialogues shall “facilitate a focused exchange of views, information and ideas, as well as the active participation of and interaction between Parties and relevant non-Party stakeholders”. To accomplish this, ideas for design of global dialogues that would encourage a focused exchange are:

- (i) to include small discussion groups (such as those under the GST “world cafés”), which need to be carefully designed, focused on guiding questions and assigned to experienced facilitators who could facilitate “focused” discussions;
- (ii) to circulate presentations and associated guiding questions for discussion in advance of the dialogue, such as under the Multilateral Assessment (MA) and the Facilitative Sharing of Views (FSV);
- (iii) to request Parties and NPS to not read prepared oral, broad statements and encourage instead to focus on the presentation of action-oriented best practices and lessons learned in how they overcame challenges to scale up and implement urgent mitigation actions;
- (iv) to encourage Parties and NPS to provide ahead of each dialogue written submissions, question, comments and/or presentations on opportunities, best practices, actionable solutions, challenges and barriers relevant to the topics of the dialogues, addressed at responding to the questions outlined under point (ii).

Implementing these ideas could in theory allow for more focused discussions on the MWP topic selected and facilitate an “active participation and interaction” between Parties and NPS, which could be helpful in

order to try to reach actionable solutions to drive urgent mitigation on the ground. However, on one hand, small discussion groups might discourage high-level participation (e.g. decision makers) because of their usually lengthier format and technical-level focus; on the other hand, high-level participants might find useful to hear results from technical discussions to evaluate implications of difference choices. Organising multiple small discussion groups in parallel, discussing a variety of slightly different topics, may help find the right angle for a broader base of participants.

In this way, organisers could consider a multi-day format for each dialogue (i.e. each dialogue over two or three consecutive days), and ideally organise such dialogues back-to-back or in parallel with other multilateral events. This would (a) allow high-level participation for one of the days and a more technical participation on others – i.e. broaden participation; (b) encourage, wherever possible and advisable, in-person participation over virtual. For the first MWP global dialogue and investment-focused event in 2023, this back-to-back approach has been taken, as these will be held in conjunction with SB58 in June 2023 (UNFCCC, 2023^[17]). Yet, forthcoming dialogues and events could also pursue different approaches.

Moreover, some studies have shown that limited time and capacity in Party delegations to prepare presentations and inputs ahead of the dialogues have led in past UNFCCC experiences to superficial assessments in certain cases (e.g. under certain FSVs – (Gupta et al., 2021^[86]) and (Jeudy-Hugo and Charles, 2022^[87]). Thus, it would be useful for the organisers if they could consider allowing enough time in advance for Parties to prepare inputs, i.e. circulate discussion questions and calls for written submission well ahead of each dialogue. Furthermore, information exchange can be formal, e.g. provision of written submissions responding to a determined set of questions prior to each dialogue (as suggested under point (iv) above), or informal, e.g. informal pre-session meetings. Both ways of exchanging information could be helpful and complementary for the MWP global dialogues and other dialogues; the organisers could consider also informal exchanges as part of the process. Some of these options and their implications are summarised in Table 8. Furthermore, organising the global dialogues over a single day could be easier to schedule, but a multi-day format (e.g. over two or more consecutive days) could help broaden participation (both high-level and technical), especially if back-to-back with another multilateral event.

Table 8. Options for the format of global dialogues, and their potential implications

Option	Advantages	Risks	Facilitates a focused exchange of views, information and ideas?	Comment
Plenary presentations	Could help increase participants' knowledge base and set the scene for subsequent small-group discussions	Limited interaction among participants	Limited	This option is not mutually exclusive with those below; a combination of options is possible.
Parallel small group discussions (in person, and/or online), with rapporteurs reporting back	Can facilitate a focused exchange of views and active participation of and interaction between Parties and NPS	The hybrid format of these dialogues might make small groups difficult to implement in practice; risk that report back to plenary might remain general and not focused	Yes (as long as the discussions and reporting back are focused on pre-determined key questions / issues)	This option is not mutually exclusive with those below and above. A combination of options is possible.
Written questions in advance of the event by the organisers	Could help presenters identify the most important issues for the audience	Could take significant resources to answer them, which may be a barrier for some (e.g. Parties with small delegations, or certain NPS categories such as local government)	Yes	Organisers could consider elaborating focused, precise questions across the two (or more) global dialogues in the same year. This option is not mutually exclusive with those above. A combination of options is possible.

Source: Authors.

3.1.3. Participation

Identifying the appropriate actors for the MWP global dialogues will be critical for the success of the MWP. An inclusive and diverse participation means that the MWP global dialogues would need to be designed in a way that attracts high-level and technical participation by domestic policy makers, practitioners and implementers of relevant mitigation actions. For Parties, this could mean extending participation beyond UNFCCC negotiators, to e.g. sectoral ministries that implement climate policies and mitigation actions (e.g. Ministries of Economy, Planning, Investment, Trade or Finance). Organisers of the global dialogues could also consider actively involving (e.g. invite to present experiences and lessons learned) business groups, NGOs, IOs, academia and civil society. The possibility to have hybrid dialogues will allow to broaden participation from various Parties and NPS. However, the selection of experts on specific yearly topics could be quite broad, and could include experts from e.g. financial institutions (private-sector banks, financial institutions, MDBs, climate funds, etc), project developers, academia, business associations, who are active in the topic area chosen in a specific year for the MWP dialogues. Hence, choosing a narrower focus could help the organisers to identify who would be the best actors to involve.

Actors participating to global dialogues can either be selected by the organisers, or participation could be left open to all constituencies. However, for the global dialogues to highlight the most relevant experiences and to conduct “focused” exchanges, organisers might consider setting up a selection process for potential participants, especially for NPS. This could be organised via submissions of interest, or via requesting potential participants to fill in a form highlighting their qualifications for the relevant global dialogue. Such participation format is already tested and successfully used for IPCC workshops and through the GST technical dialogues (managed by the high-level champions).

The roles that will be assigned to the participating or selected actors to be invited will also be important to generate momentum and to facilitate a focused exchange of views, information and ideas. Policy makers (national or sub-national) having developed successful policies in the yearly MWP topics chosen by the co-chairs could be invited to speak, not only on what they achieved, but also how they did it, who was involved (e.g. consultation with industry, civil society, academia, etc.), how long it took, how barriers were overcome, whether there were any trade-offs and how these were managed. Implementers of such policies, e.g. project developers, could also be invited to present key challenges and how they overcame them. Other NPS, especially those involved in existing initiatives focused on urgent mitigation action, could be invited to share insights, lessons learned, mitigation potential, and economic, climate and other environmental and social co-benefits. Table 9 summarises some of these considerations per type of actor that could participate to the MWP global dialogues.

Table 9. Potential role of different actors in the global dialogues

Stakeholder	Potential Role
UNFCCC secretariat	Organisation and support to co-chairs.
Parties	
High-level (e.g. Heads of State, Ministers, COPs Presidents, Special Envoys, Heads of Delegation)	Generate political momentum by delivering presentations on the overarching challenge of the yearly topics selected by the co-chairs.
MWP negotiators	Share Party positions, provide support for and co-ordination with non-negotiator participants from the same Party, liaison with co-chairs and UNFCCC secretariat.
Implementers / sector experts (e.g. from sectoral ministries that implement mitigation actions, such as Ministries of Economy, Planning, Investment, Trade or Finance)	<ul style="list-style-type: none"> For Parties having developed successful policies in the yearly MWP topic: Present insights on how successful policies in the yearly topics selected by the co-chairs were designed and implemented, actors involved, timelines, common barriers and strategies to overcome them. For Parties having not yet managed to reduce associated emissions in the yearly MWP topic: participate actively in discussions, asking questions, and fostering dialogues to find practical solutions for their own specific circumstances. Implementers and sectoral experts could also potentially play active roles in technical discussions under the MWP global dialogues.
Non-Party Stakeholders	
International organisations	Share relevant latest insights from their areas of expertise, participate as observers otherwise.
Sub-national actors (e.g. regions, cities, etc.)	<ul style="list-style-type: none"> For sub-national actors having developed successful policies in the yearly MWP topic: Present insights on how successful policies in the yearly topics selected by the co-chairs were designed and implemented, actors involved, timelines and common barriers and financing strategies / source to overcome them. For sub-national actors having not yet managed to reduce associated emissions in the yearly MWP topic: participate actively in discussions, asking questions, and fostering dialogues to find practical solutions for their own specific circumstances.
Companies	Share relevant latest insights from their areas of expertise, participate as observers otherwise. To promote efficiency of the MWP process, co-chairs could consider to request companies to avoid promotion of their own specific work (e.g. marketing) but rather focus interventions on practical solutions.
Civil society	Voice potential support or concerns, participate as observers otherwise.
Public financial institutions and other providers of finance	Share relevant latest insights from their areas of expertise, participate as observers otherwise. Co-chairs could consider to request these actors to avoid replicating the same interventions in the investment-focus events.

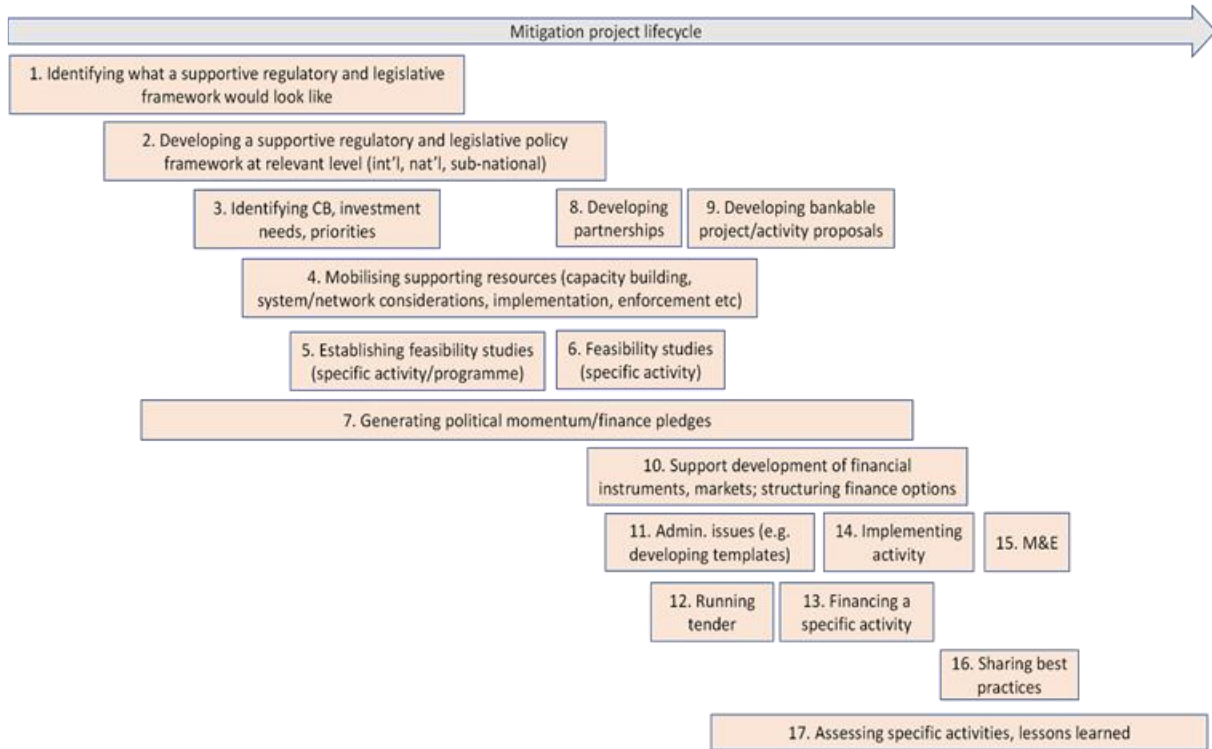
Source: Authors.

3.2. Possible focus of investment-focused events

As highlighted above, there is increasing experience with events that aim to bring different communities together in order to increase investment, including in climate mitigation (see e.g. (AfDB, 2022^[88]) (European Commission, 2022^[29]) (OECD, 2018^[89])). Many different steps are needed to develop, identify, prepare, finance and implement mitigation actions, involving a variety of actors. Figure 2 highlights these different steps. Some of these steps are very broad (e.g. developing a supportive regulatory and legislative policy framework for investment), would involve multiple actors at different scales and could take large amounts of resources. Other steps are less resource-intensive and may need to involve fewer actors, such as developing templates for project applications, or developing tools for monitoring, evaluating and learning from the performance of a given project. The aim of an investment-focused event under the MWP will influence what the most effective format and structure of that event will be. The specific focus of an

investment-focused event will also influence which countries, sectors, stakeholders are most likely to benefit from the outputs of that event.²⁶

Figure 2. Different steps relevant to implementing mitigation projects



Source: Authors.

Ensuring that “investment-related events” under the MWP have a specific focus, within the broad focus announced for MWP dialogues in 2023 (accelerating a just energy transition), could help to target discussions that lead to focused results. Ensuring that there is a specific focus to these events would mean that the MWP co-chairs decide to focus investment-related events on a specific stage of the mitigation project lifecycle (or a sub-component of this, e.g. what is needed to develop a supportive regulatory and legislative policy framework to encourage investments in reducing emissions from a specific GHG or sub-sector). Given that the co-chairs have a two-year tenure, it could be possible to organise a roadmap laying out the aims of the investment-focused events in the two-year period, and if/how these events link to the global dialogues. It could also be possible to encourage follow-up by dedicating a specific part of events to highlight what happened as a response to a previous event. The most appropriate audience for an investment-focused event would depend on the aim of the investment-related event. The 2022 CMA MWP decision (UNFCCC, 2022^[3]) specifically mentions public and private financiers, investors and international climate finance providers, and Table 10 highlights other possible stakeholders who may also be relevant for different types of investment-focused events. For example, events targeted at identifying regulatory and investment frameworks that encourage investment (in general), or to identify regulatory and investment

²⁶ For example, an investment-focused event may target issues related to improving the regulatory environment to increase mitigation investments in a specific sector or sub-sector. Such a focus would be of most relevance to countries where this specific sector or sub-sector is a key emissions category, and where regulatory barriers exist to increased mitigation. Alternatively, an event on the same sector or sub-sector could focus on financial aspects (e.g. how to de-risk investments in that sub-sector).

frameworks that encourage investment in specific activities, could be directed towards an audience who develop, implement and/or analyse policies. Whereas mobilising supporting resources and generating partnerships may better be done by involving ministers from a variety of departments alongside investors.

There is a wide range of possible aims of “investment-focused events” (corresponding to the broad areas outlined in the 2022 CMA MWP decision (UNFCCC, 2022^[3]) outlined in Table 2, as well as to each of the steps relevant to implementing mitigation projects, as outlined in Table 11). These aims could include those related to enabling factors such as identifying, developing, implementing a policy framework that encourages investments. The aims could also include developing or disseminating tools (such as how to ensure appropriate stakeholder participation and buy-in, how to develop a bankable project activity proposal). Other aims could be to generate high-level interest or pledges of support for mitigation activities in a specific sector and/or gas. Still other aims could involve sharing best practices or other learnings for specific activity types, or specific funding channels. Depending on the aim of the event, different sets of stakeholders could usefully be involved (Table 11)

Identifying the broad aim, and then where along the mitigation project lifecycle an investment-focused event is targeted is an important first decision for the MWP co-chairs. This decision will influence who the target audience is, and thus also influence the most appropriate format for the events, as well as the choice of “other events” that MWP events can be held in conjunction with. Other questions that will help guide the focus of investment-related events are outlined in Table 10.

Table 10. Examples of possible questions to guide the selection of the focus of investment-focused events

Key question	Comment
<p>What is the aim of the event in relation to the CMA4 mandate, e.g.?:</p> <ul style="list-style-type: none"> - Overcoming barriers to finance (if so, are the barriers related to policy/regulatory framework, related to specific activity types, tools needed to mobilise investment, to access to finance) - Unlocking finance - Identifying investment opportunities 	<p>These three aspects are included in the mandate of the investment-related events. However, the type of audience with the skills and knowledge to address these different aspects of investment can be very different, ranging from project participants, public financial institutions and providers of concessional finance, private sector investors, and thinktanks. Organisers may wish to consider how to narrow down the focus to ensure targeted discussions.</p>
<p>What is the focus of the event (e.g. geographically, or in terms of the different steps relevant to implementing mitigation projects)? Who would an appropriate audience be?</p>	<p>Organisers could consider how the focus of the event will influence the stakeholders of most relevance to participate in the event (as well as the stakeholders who are most likely to benefit from any outcomes of the event), and how direct a link there is between the event and action on the ground.</p>
<p>What is the proposed specific topic for the event and does it address barrier(s) to investment in activities/sectors discussed in the associated global dialogue?</p>	<p>Ensuring that there is a substantive link between the overall focus of the global dialogues and the investment-focused events could help to maximise their impact and the participation of relevant stakeholders.</p>
<p>Over what timeframe does the investment-focused event aim to generate results, and how direct is the causal chain expected to be?</p>	<p>There can be a long time lag between the different elements of planning, financing and implementing a mitigation activity. Organisers may wish to consider whether the “urgency” of the MWP programme means that it needs to focus on later stages of the mitigation project lifecycle, and if so, what implications this could have in terms of the geographical or sectoral split of investments made as a result of the MWP.</p>
<p>Given the large number of investment-focused events happening in various fora and for various audiences, are there other similar events already being planned?</p>	<p>The CMA4 decision provides for MWP events to be held “in conjunction with” other events – of which there are many (see Table 4). It could therefore be helpful to identify such possibilities.</p>
<p>Will the different investment-focused events during the co-chairs mandate build on each other, or be linked in any way – and/or linked to the global dialogues?</p>	<p>As the co-chairs have a two-year mandate, they may decide to focus different events on different parts of the mitigation project cycle. Alternatively, they may decide to link the focus of the global dialogues with the investment-focused events.</p>
<p>Do investment-focused events need to be balanced in terms of regions, country groupings, sectors, and/or GHGs?</p>	<p>Mitigation potential is not spread evenly across countries, country groupings, sectors or gases. Event organisers may need to balance considerations for investment-related events on maximising short/medium-term mitigation impacts vs other criteria (e.g. inclusiveness)</p>

Source: Authors.

Table 11. Stakeholders relevant to the different steps needed to implement mitigation projects

Focus of selected events (Figure 2)	Key stakeholders
1. Identifying characteristics of a supportive regulatory, legislative framework	Policy makers (national and sub-national) and policy-relevant thinktanks, public financial institutions and providers of concessional finance, International Organisations (IOs)
2. Developing a supportive framework at relevant level	Policy makers (national, sectoral and sub-national), public financial institutions, IOs, Civil Society Organisations (CSOs)
3. Identifying CB, investment needs, priorities	Governments (national and sub-national), thinktanks, financial institutions
4. Mobilising resources for feasibility studies, TA, CB, etc.	Public financial institutions, private sector investors, CSOs
5.,6. Support development of financial instruments, markets; develop tools relevant to establishing feasibility studies for specific sectors, activity types	Industry bodies, public financial institutions, IOs, policy-relevant thinktanks and research organisations
7. Generate political momentum/finance pledges	Political leaders and other high-level participants from governments, businesses, industry, IOs, CSOs
8. Developing partnerships for specific sectors, activities	Governments, ministers, public financial institutions, businesses, technology providers, IOs
9. Developing bankable project/activity proposals	Project participants, public financial institutions and providers of concessional finance
10., 11., 12. Support the development of financial instruments and markets; develop tools, templates relevant to structuring finance, running tenders, applying for funding	Public financial institutions, private sector investors, thinktanks working in relevant areas, IOs, high-level champions
13. Matchmaking between funders/participants for a specific activity	Governments, public financial institutions and providers of concessional finance, businesses, IOs
14. Develop “lessons learned” “best practices” for planning/implementing a specific activity	Public financial institutions and providers of concessional finance, project participants, thinktanks and research organisations, IOs, high-level champions
15. Develop “how to” for monitoring, evaluation, learning for specific activity	IOs, policy makers, public financial institutions, NGOs, thinktanks
16.,17. Identify, share best practice	Governments (national and sub-national), public financial institutions, IOs

Source: Authors, building on (Garnak, 2022^[90]).

4. Examples of successful policies, initiatives and coalitions

An assessment of how specific policies, initiatives or coalitions have managed to rapidly mitigate emissions or can be designed to do so could be helpful to inform discussions at the global dialogues and investment-focused events to scale up mitigation ambition and implementation. At such events, Parties and NPS could usefully highlight information and experiences from specific examples that are relevant to the topics of a dialogue, in a way that highlights practical information that could be useful to other stakeholders. This could include: the type of information that may be relevant – what the policy, initiative or coalition consists of and what problem(s)/challenge(s) it aimed to address; how it managed to rapidly reduce emissions; how a country knew it was relevant for them, how it was planned, implemented, financed; which steps were undertaken to enter the policy into force and which actors were involved at each step. Information shared under the MWP could also highlight the effectiveness of international initiatives and coalitions where different Parties and NPS have worked together to collectively contribute to certain breakthroughs. Sharing information from different initiatives and coalitions could attract more stakeholders, as well as contribute to the continuous improvement and scrutiny of such initiatives and coalitions. Information shared under the MWP dialogues and events could also focus on specific policies, because providing clear and compelling evidence of the success of specific mitigation policies in reducing GHG emissions could help inspire and guide the implementation of similar policies in other contexts. The examples could also emphasise the scalability of successful policies because this could help encourage decision-makers to adopt them in their own contexts. This could involve exploring the factors that contributed to the success of a policy, initiative, or coalition in a specific context, and identifying how those factors could be replicated elsewhere.

One of the challenges for the effectiveness of this exercise (i.e. of turning good examples into mitigation actions in other contexts) is that each country has unique characteristics and starting points. In certain cases, examples of successful policies would not be necessarily useful for the MWP if these are tied to unique characteristics of a country that would make it challenging for other countries to replicate and adapt to their specific contexts. However, other specific examples, if carefully selected and analysed, could extract useful lessons learned that could be used by other countries to emulate how certain barriers can be overcome. This section provides non-prescriptive examples of such lesson learned from successful national policies, that managed to reduce rapidly emissions as well as insights from some international initiatives and coalitions where different stakeholders work together to scale up climate mitigation.

This section outlines examples of policies in three different sub-sectors, covering different GHG, where rapid scale-up of mitigation action has been noted. These cases are: (i) methane abatement from fossil fuel production; (ii) uptake of electric vehicles in Norway; (iii) reduced deforestation in Brazil. These examples were chosen because of a rapid mitigation of emissions in these sub-sectors, and the lessons learned from the specific examples could be replicable in other contexts, although it is recognised that each country has specific circumstances and different starting points. These examples are intended to illustrate the type of information that could be useful to third parties who may be interested in replicating such activities in their national contexts. Each example explains why the sub-sector has led or can lead to a rapid scale up of mitigation action, describes the main common challenges to a rapid scale up, if/how

such challenges were addressed and identifying lessons learned where possible. In addition, this section highlights the potential role of international initiatives or coalitions in helping to scale up mitigation actions.

While certain examples include many country-specific issues, this does not necessarily mean that such examples are not relevant or useful for the MWP. For instance, the context around the example of uptake of electric vehicles in Norway has shifted considerably over time and also depends on other non-domestic factors, such as global supplies for electric vehicles production (e.g. supply of critical minerals). However, this example (or similar ones) could still be highly impactful in the MWP by showcasing many of the key policies, or policy packages, that have enabled a rapid uptake of mitigation actions – as this information could help other countries to kickstart domestic policies in other contexts. Additionally, by highlighting the successful policies and initiatives that have been implemented, stakeholders can gain valuable insights into what has worked and what has not. This can inform both future domestic policy design and implementation.

4.1. Methane emission reductions from gas flaring in oil production

Methane (CH₄) is an important GHG estimated to be the second largest contributor to global anthropogenic emissions (19%) (IPCC, 2022^[91]). Curbing methane emissions could bring an important and immediate climate benefit to limit global warming in the short term, as methane has a higher Global Warming Potential (GWP) than carbon dioxide²⁷. Hence, rapid and sustained methane reductions are key to limiting near-term global warming. The energy sector is responsible for around 38% (over 4 GtCO₂-eq in 2021) of total anthropogenic methane emissions (IEA, 2022^[92]). Of these, the three most important categories are coal mine methane (32%), oil production (32%) and extracting, processing and transporting natural gas (29%) (IEA, 2022^[92]). The IEA estimates that energy-related methane emissions will need to be reduced by 75% between 2020 and 2030 to keep the 1.5°C goal of the Paris Agreement within reach (IEA, 2022^[93]) (IEA, 2022^[94]). The urgent need to tackle methane emissions is also recognised as a priority by certain Parties, as some have explicitly included in their written pre-COP27 MWP submissions the need to tackle “non-CO₂ emissions” (UNFCCC, 2023^[95]). The following paragraphs focus on mitigation opportunities from methane reduction from oil production.

Increased use of existing technologies could reduce methane emissions in the oil and gas sector by more than 75%, where even 40% of the total could be avoided at no net cost considering the average natural gas prices between 2017 and 2021 (IEA, 2022^[96]). The IPCC estimates that between 50% and 80% of CH₄ emissions from fossil fuels (oil, gas and coal) could be avoided with currently available technologies with a carbon price at less than USD 50 / tCO₂-eq (IPCC, 2022^[91]).

The oil production process generates fugitive gas emissions (predominantly methane (Intergovernmental Panel on Climate Change, 2000^[97]) via e.g., equipment leaks, process venting, evaporation losses, flaring, accidents and equipment failures (Intergovernmental Panel on Climate Change, 2000^[97]). However, in some cases flaring or venting²⁸ of methane is put in place for safety, economic, technical and/or regulatory reasons. Where there is adequate infrastructure, methane could be “recuperated”, i.e. transported and stored or used for other purposes, such as electricity production. This could reduce emissions if it displaces the consumption of electricity generated by other more carbon-intensive fossil fuels, as oil and coal (World

²⁷ Methane is a GHG with a shorter atmospheric lifetime than carbon dioxide (CO₂), with an average lifetime of 12 years compared to centuries for CO₂, but much more potent in terms of warming potential. The IPCC indicates that one tonne of methane has a global warming potential (GWP) equivalent to around 80 tCO₂ (GWP20) and to about 30 tCO₂ over a 100-year timeframe (GWP100).

²⁸ Flaring of natural gas is defined as the controlled combustion of natural gas for operational, safety or economic reasons, while venting is the direct release of natural gas into the atmosphere, usually for short periods of time and lower volumes compared to flaring (Intergovernmental Panel on Climate Change, 2000^[97]).

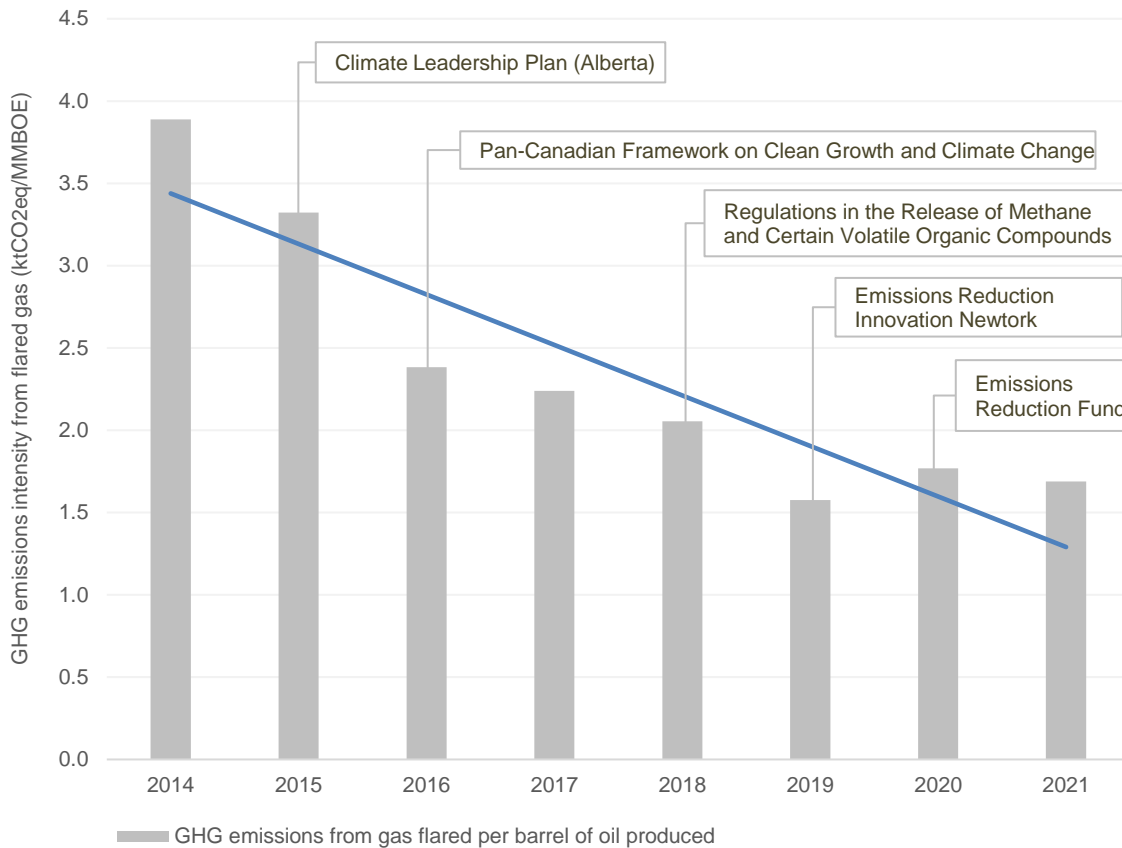
Bank, n.d.^[98]). Moreover, by burning methane either in flaring or in the electricity generation process, carbon dioxide is generated and emitted to the atmosphere, which has a smaller impact to the atmosphere due to its lower GWP. Globally, 143 billion cubic metres (bcm) of natural gas were flared in 2021, emitting 510 Mt CO₂-eq into the atmosphere (IEA, 2022^[99]). Public policies and regulations are needed to provide effective incentives to reduce flaring methane from oil production processes in favour of recuperation of the gas (IEA, 2022^[100]).

Several countries managed to reduce emissions from methane through the implementation of policy measures. For instance, Canada is one of those countries. Canada, which is a large oil producer, has the third largest proven reserves of crude oil worldwide (Canadian Energy Centre, 2020^[101]). The oil sector in this country represents one of the most important contributors to its GHG emissions, accounting for 12% of Canada's GHG emissions in 2020 (Environment and Climate Change Canada, 2022^[102]). The greatest concentration of gas flaring happens in three provinces: Alberta, British Columbia and Saskatchewan (World Bank, 2022^[103]).²⁹ Due to Canada's regulatory framework, federal and provincial governments share the authority over environmental issues (including methane emissions).

Canada has taken important steps to reduce its methane emissions from its oil production process. In particular, several factors have enabled the oil industry in Canada to generate a breakeven point in the increase of flared gas and reduced rapidly its emissions from methane flaring by 36% between 2014 and 2018, even as its oil production increased by 22% over the same period ((IEA, 2023^[104]) - Figure 3). These factors included: (a) a package of complementary and sequenced policies and regulations at the federal and provincial levels, (b) consultation and collaboration among different stakeholders (national, provincial government and industry), (c) economic incentives and penalties for regulatory non-compliance, and (d) improvement of data availability and quality.

²⁹ Alberta represents 50% of the national oil production, whereas Saskatchewan accounts for nearly 30% of national production and British Columbia less than 2% (World Bank, 2022^[177]).

Figure 3. Emissions intensity from methane flaring by oil production in Canada between 2014-2021



Source: Authors based on numbers from (IEA, 2022_[105]) and literature from (IEA, 2022_[106]).

Canada has a long history of policy packages (a) to reduce methane emissions from more than two decades. These include regulations, programmes, coalitions, laws and policies, as well as economic incentives with funds and monetary penalties, from 1999 at the federal level or even earlier at the provincial level in Alberta from 1971 (IEA, 2022_[107]) (IEA, 2022_[108]). Along the series of policies adopted until today, three of them were key. First, the 2016 Pan-Canadian Framework on Clean Growth and Climate Change (PCF), a plan that among different measures included new regulations establishing a goal of reducing emissions from upstream oil and gas facilities by 40-45% below 2012 levels by 2025 (IEA, 2022_[109]). Another was the federal regulation published in April 2018 introducing operating and maintenance standards requirements to regularly repair and inspect equipment to reduce emissions from intentional leaks, venting and flaring (IEA, 2022_[110]). Subsequently, the Canadian government established a fund to support mitigation actions within the private sector to reduce or eliminate these emissions (IEA, 2022_[111]).

Consultation and collaboration among different stakeholders (b) were also key for success. Inter-institutional collaboration among federal and provincial jurisdictions has been key to avoid regulatory overlapping, and to ensure that policies complement and enhance each other. Furthermore, collaboration between the different stakeholders, mainly among industry, government and environmental groups, has also been an important component. For example, the Clean Air Strategic Alliance (CASA) coalition developed a framework for understanding and addressing flaring reduction (CASA, 2010_[112]). The Petroleum Technology Alliance Canada (PTAC) is another alliance that focuses on reducing methane emissions from flaring and other sources. The Canadian Emissions Reduction Innovation Network

(CERIN) is network that brought together federal and provincial government, researchers and private sector to develop, validate, and deploy technologies to reduce methane emissions in the oil and gas sector (IEA, 2022^[113]).

In terms of (c) economic incentives and penalties for regulatory non-compliance, Canada established different economic measures to incentivise methane recuperation instead of flaring by oil companies. At the federal level, the Canadian government established a fund focused on practical solutions to reduce or eliminate routine intentional venting and flaring of natural gas (Clean Energy Regulator, 2023^[114]). At the provincial level, Alberta has, since 2003, implemented a fine to oil companies of CAD 5 000 per infraction or day related to methane flaring and venting (World Bank, 2022^[103]), while British Columbia has, since 2011, had a penalty with fines ranging from CAD 16 000 to CAD 200 000 (World Bank, 2022^[103]).

Data (d) is also key to any mitigation strategy. Canada has a long history of data collection in the oil and gas sector. The country has a National Inventory of Contaminant Emissions, which is publicly accessible and updated monthly. This inventory was strengthened in 2004 establishing emission reporting requirements to oil operators (IEA, 2022^[115]). In addition, different provinces have complementary regulations to strengthen their data availability and quality. For instance, in 2020 British Columbia adopted more stringent rules for monitoring, reporting and actions to flaring, venting and leak detection and repair (IEA, 2022^[110]). In 2013, the province of Alberta established a programme which collects i.a. methane emission data from major industrial emitters in conjunction with the federal government (IEA, 2020^[116]).

Considering Canada's experience on rapidly reducing of emissions from methane flared in the oil industry there are some lessons learnt that can be useful for other countries:

- **Availability and access to reliable data on methane flaring is key:** Accessible, reliable and updated data help to understand the magnitude of the problem, inform more effective decision-making and constant progress on methane emissions mitigation from flaring in the oil sector. Some of the policies and measures implemented, both at federal and provincial level, strengthened the monitoring, reporting and accounting requirements of flared methane volume. Access to such data, where different initiatives played a key role through research (e.g., CASA coalition, PTAC Alliance and the CERIN network), has also allowed for a collaborative atmosphere between different stakeholders by sharing experiences.
- **A package of policies is needed:** No single policy can tackle methane flaring. A multitude of complementary policies is essential to identify and implement the most effective and efficient measures to reduce methane flaring, with an eye on national and sub-national alignment and continuous improvement. The first provincial regulations in Canada on methane flaring from oil production dates back more than 50 years, and federal regulations over 20 years. Since those first regulations had been introduced, another some 40 complementary policies, regulations, and initiatives tackling methane flaring have been created at federal and provincial level (IEA, 2023^[117]).
- **Economic incentives and penalties for non-compliance are needed:** A combination of economic incentives and regulatory non-compliance penalties enabled the implementation of methane abatement measures from flaring in Canada, as these made methane abatement opportunities economically attractive to industry.

4.2. Accelerated Electric Vehicle penetration in Norway

This sub-section explores which enablers and policies allowed Norway to rapidly scale up electric light-duty vehicles (electric LDVs)³⁰ and draw lessons learnt that could potentially be replicated elsewhere.

³⁰ Electric light-duty vehicles refer to passenger cars and light commercial vehicles with a total weight below 3.5 tonnes (IEA, 2021^[173]).

Electric LDVs could help reduce road transport emissions (IEA, 2022^[118]) (Jaramillo et al., 2022^[119]), yet electric LDVs are not deployed on a large scale globally. In 2019, the global transport sector represented the fourth largest emissions source, with road transport being responsible for 73% of transport's GHG emissions in 2019 (IEA, 2022^[118]). Since 2010, road transport CO₂ emissions have increased by 58% (IEA, 2022^[118]). In addition, most existing transport remains reliant on oil products, while transport powered by electricity only represents a very small share (1.2% in 2019) (IEA, 2022^[118]). Despite road transport being the largest share of total transport emissions, it also represents one of the largest mitigation potentials (Taptich, Horvath and Chester, 2015^[120]). In 2021, electric LDVs accounted for 9% of total car sales globally. For the world to reach net zero by 2050 and keep the 1.5°C temperature goal within reach, 60% of global electric LDV sales need to be electric by 2030 and no new internal combustion engine (ICE) light-duty vehicle can be sold after 2035 (IEA, 2022^[121]). Electrifying road transport can therefore help close the emissions gap towards 2030.

Various challenges hinder the wide-scale deployment of electric LDVs globally. These include technical, financial, acceptability and policy barriers. Technical barriers include limited availability of some of the materials needed to produce motors and batteries for electric LDVs, with such critical minerals thus potentially creating a bottleneck³¹ (IEA, 2022^[122]). The financial barriers relate to the cost of electric LDVs, which in 2023 are still higher than ICE vehicles despite a significant recent drop in the market price of electric LDVs. Furthermore, to support a roll out of electric LDVs, an extensive charging infrastructure is needed (IEA, 2022^[123]). Acceptability barriers relates to social factors such as the lack of knowledge about electric LDVs and their lower environmental impact compared to ICE vehicles (Adhikari et al., 2020^[124]). Policy barriers could be the lack of an electric LDV strategy and policy framework, which could be important to help overcome other barriers.

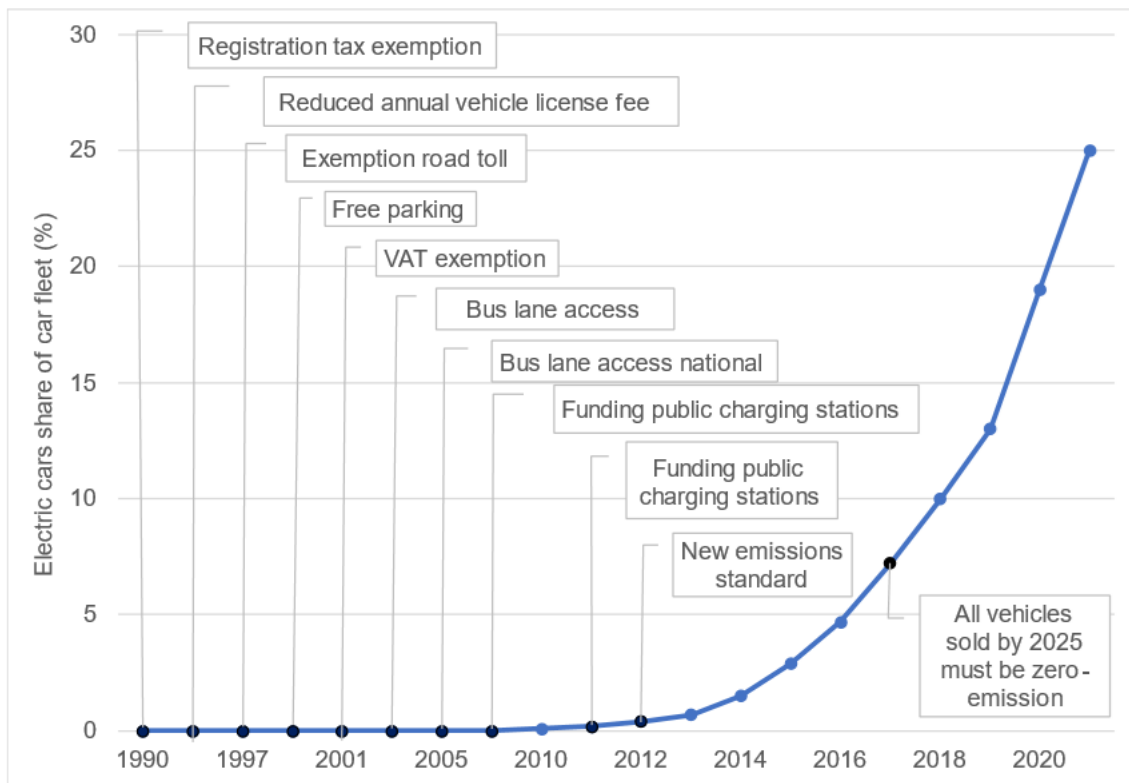
Some of Norway's unique characteristics created favourable conditions for a rapid electric LDVs uptake, including that Norway is a wealthy country with a large budget surplus, which has allowed it to provide economic and policy support for the deployment of electric LDVs and associated charging infrastructure at a national level. Charging infrastructure both at home and in numerous public spaces is particularly important in a country like Norway, with long distances between cities (Fearnley et al., 2015^[125]). Due to national charging infrastructure efforts, most households have access to charging stations, or they have sufficient electric capacity installed to charge electric vehicles (EVs) at home (Figenbaum and Nordbakke, 2019^[126]). ICE vehicles taxation was first introduced in 1955, from which it has since grown and developed (Østli et al., 2021^[127]). Today, ICE vehicles are heavily taxed in Norway³². Thus, government decisions to reduce or exempt electric LDVs from such taxes has helped create a favourable tax environment for these vehicles (Figenbaum, Assum and Kolbenstvedt, 2015^[128]). Moreover, the fuel tax contributes to Norway having some of the highest fuel prices in Europe, while electricity is renewable and cheap (IEA, 2020^[129]) (Energy Facts Norway, 2017^[130]). Furthermore, Norway has no domestic production of ICE vehicles; therefore, the rapid electric LDVs uptake also led to a low industry pushback (Figenbaum, 2017^[131]). Norway has a high level of electric LDV penetration, with their share³³ increasing from 0.4% in 2012 to 22% of the total Norwegian car fleet in 2021. Very rapid increases in uptake were noted between 2019-20 and 2020-21 (IEA, 2022^[132]).

³¹ Critical minerals are key in a shift to clean energy systems as they are used e.g. in electric LDVs (copper, lithium, nickel, manganese, cobalt and graphite) (IEA, 2022^[122]).

³² (e.g. vehicle purchase tax including VAT, annual registration tax, and fuel taxes)

³³ Refers to electric cars, but not trucks and vans (IEA, 2022^[132]).

Figure 4. Electric cars share of vehicle stock in Norway and important developments from 1990-2020



Source: Authors based on numbers from (IEA, 2022^[132]) and literature from (Figenbaum and Kolbenstvedt, 2013^[133]) (Figenbaum, Assum and Kolbenstvedt, 2015^[128]) (Figenbaum, 2017^[131]).

Norway's rapid electric LDV penetration has been encouraged via a mix of government regulations and strategy that contributed to overcoming common electric LDV barriers. These different strategies included both economic and non-economic policies, alongside technological electric LDV developments, and incorporated elements relevant to an uptake of electric LDVs in a national climate strategy. Some of these strategies (e.g. exemptions from taxes or charges) are more costly than others (e.g. providing access to bus lanes). Nevertheless, several of these strategies could be replicated in other countries. However, many of these strategies were deployed long before the rapid uptake of electric LDV's occurred (see Figure 4).

Economic regulations have been heavily used by the Norwegian government as incentives to foster an electric LDV uptake. The first electric LDV incentives and subsidies, which helped lay the foundation for the subsequent uptake, can be traced back to 1990s.³⁴ Further economic incentives were created as electric LDVs were granted Value Added Tax (VAT) exemption in 2001, helping to even out the difference in capital costs between EVs and conventional fossil fuel cars. After the financial crisis in 2008/9, the Norwegian government introduced an economic stimulus package, attributing NOK 50 million (EUR 6 million) (Norwegian Parliament, 2009^[134]) (Figenbaum, 2017^[131]) and later (2011) additional funds to establishing public charging stations, making it easier to deploy EVs as taxis (Figenbaum and

³⁴ Norway exempted electric LDVs from registration taxes (1990), reduced the annual vehicle license fee (1996) and provided exemptions from toll road charges (1997). The latter had a large impact, as toll road charges are expensive in many places in Norway; for instance, in the Oslo area, toll charges are EUR 600 - 1 000 per year for commuters, while in other areas charges can be above EUR 2 500 per year (Figenbaum and Kolbenstvedt, 2013^[133]) (Figenbaum, Assum and Kolbenstvedt, 2015^[128]).

Kolbenstvedt, 2013^[133]). Although the majority of these incentives were deployed nationally, some municipalities went further and applied their own incentives, such as purchase support (Figenbaum, 2017^[131]) or public procurement (Figenbaum and Kolbenstvedt, 2013^[133]). This underlines the importance of having a national strategy which provides certain flexibility for municipalities.

Non-economic regulations were also used to encourage an electric LDV uptake, albeit on a smaller scale than the economic regulations. The Norwegian government for instance provided advantages to electric LDV drivers by providing free parking for electric LDVs in municipalities nationally (1999) (Figenbaum and Kolbenstvedt, 2013^[133]) (Figenbaum, Assum and Kolbenstvedt, 2015^[128]). Electric LDV drivers gained further advantages as they in the start of the 2000s were first allowed access to bus lanes in Oslo (2003) and later nationally (2005), helping them avoid traffic congestion (Figenbaum, Assum and Kolbenstvedt, 2015^[128]).

Technology improvements contributed to increased demand for electric LDVs. Advances in battery technology led to reduced market cost of electric LDVs, and to an expansion in the selection of electric LDVs, contributing to increased demand. Furthermore, as the market price of electric LDVs fell the demand rose. This increased attention to the electric LDV market, further boosting the selection of electric LDVs, and helping to reduce previous short supply issues (Figenbaum, 2017^[131]) (Figenbaum and Kolbenstvedt, 2013^[133]).

A national climate strategy released in 2012 outlined Norway's aim to be climate neutral by 2050 and for a more environmentally friendly transport sector help achieve this by deploying electric LDVs. Although the climate strategy did not outline a national strategy for electric LDVs, it did set a passenger vehicle standard that required the use of electric LDVs to be fulfilled. The established new average passenger vehicle emissions standard of 85g CO₂/km by 2020 (Norwegian Parliament, 2012^[135]), could only be reached with a significant market penetration of electric LDVs (Figenbaum, Assum and Kolbenstvedt, 2015^[128]). Furthermore, in 2017, a new national goal was set, stating that all cars sold by 2025 should be zero emissions vehicles, included both electric LDVs and hydrogen cars (Norwegian Ministry of Transport and Communications, 2017^[136]).

The uptake of electric LDVs in Norway could provide important lessons that could inform other countries on how to overcome known barriers. Such lessons could for instance work as inputs in the global dialogues or be used in the investment-focused events. Lessons from Norway show that a single policy or measure does not lead to the uptake of electric LDVs. Instead, it requires the combination of incentives, policies, infrastructure investments, technological advancements, alongside the supply of electric LDVs at reasonable prices and the co-ordination between governance levels. Key lessons from the Norwegian example are:

- **A mixture of economic and non-economic policies is useful to increase the price competitiveness and attractiveness of electric LDVs compared to conventional ICE vehicles.** Offering nation-wide economic (e.g. VAT and road toll exemption) and non-economic incentives (e.g. bus lane access) can make electric LDVs more economically appealing to individuals compared to ICE vehicles. Nation-wide incentives could therefore contribute to an extension of the electric LDV market, as seen in the case of Norway. However, providing economic incentives are often costly for governments, and may not be feasible for all countries. Alternatively, countries could deploy a feebate system, where taxes on ICE vehicles are used to subsidise electric LDVs. Furthermore, it is important to plan for a gradual phase out of policies once electric LDVs have been established and costs have improved.
- **Providing incentives to develop charging infrastructure is essential and would be facilitated by the co-operation of national and local governments.** A widespread charging infrastructure, financed by the government, through public-private partnerships or other finance mechanisms, contributes to the expansion of the electric LDV market and ensures that owners can use electric LDVs for long-distance trips. Such incentives are important to expand public charging stations, as

well as to expand public parking connected to housing areas. Furthermore, a co-operation between national and local governments are essential to ensure that placement of charging stations correspond to the demand in various places and enable drivers to go from city to city without charging issues.

- **Electric LDVs can reduce pipeline emissions and contribute to closing the mitigation gap, yet only if powered by a low-carbon grid.** In many countries around the world electricity is mainly powered by fossil fuels, contributing to increasing GHG emissions. To ensure that electric LDVs help mitigate climate change it is crucial that the electricity powering electric LDVs is generated from low-carbon source (e.g. renewables or nuclear power), rather than from fossil fuels.

4.3. Reduced deforestation in the Amazon rainforest of Brazil

This section explores policies used to reduce deforestation rates from 2004-14 in the Amazon rainforest in Brazil (hereafter “the Amazon”) and draws out lessons transferable to other contexts. Deforestation contributes a significant component of global GHG emissions, with forests worldwide³⁵ having shrunk around 10.3% (420 million hectares) from 1990-2020 due to deforestation (FAO, 2022_[137]).³⁶ Not only do deforestation and forest degradation³⁷ threaten biodiversity and impact livelihoods globally, but they also contribute to reducing carbon sinks thereby lowering forests’ capacity to absorb CO₂ (Pathak et al., 2022_[138]). Reversing such trends could help climate change mitigation (Brienen et al., 2015_[139]) and close the mitigation gap towards 2030. In addition, they could also contribute to one of the new targets established at COP15 of the UN Convention on Biological Diversity (CBD). These targets include the aim to restore 30% of degraded ecosystems on land and sea as well as conserve and manage 30% of areas (terrestrial, inland water, and coastal and marine) by 2030 (CBD, 2022_[140]). The following paragraphs focus specifically on reducing deforestation.

The Amazon, one of the most biodiverse places on earth (Lewinsohn and Prado, 2005_[141]) (Da Silva, Rylands and G.A.B., 2005_[142]), has gone through periods with both high and low deforestation rates. In 2004, deforestation rates in the Amazon peaked, leading to an increase in Brazil’s CO₂ emissions and overall GHG emissions from the land use change and forestry sector (Gandour, 2021_[143]). However, a significant decrease in deforestation and associated CO₂ emissions were observed from 2004-14, following the deployment of various policies (Gandour, 2021_[143]). Despite these positive trends, deforestation rates have increased since 2015 and have reached decade-high peaks in 2019 and 2020 (OECD, 2021_[144]). This displays how a change in political circumstances can have a negative impact on deforestation rates (OECD, 2020_[145]). Nevertheless, Brazil has shown that it can reduce deforestation and associated GHG emissions, and there are therefore high expectations on this for the new administration in Brazil.

The Amazon provides many commodities upon which Brazil’s economy and livelihood depends, yet a lack of several elements prior to 2004, led to a rise in deforestation rates. Brazil is a top five producer of 34 commodities (e.g. soy, grains, cotton, ethanol, and meat) (Valdes, 2022_[146]). Commodity production is key for local livelihoods and development, yet also poses environmental challenges, including deforestation. Prior to 2004, there were certain environmental regulations in place (e.g. the Brazilian forest code, the

³⁵ Forest around the world cover 4.06 billion hectares of land, equivalent to 31% of global land surface (FAO, 2022_[137]).

³⁶ Deforestation is the long-term conversion of forest to other types of land use (e.g. agriculture, pasture, water reservoirs, infrastructure and urban areas) (FAO, 2018_[174]).

³⁷ Forest degradation is the reduced capacity of a forest to provides goods and services (e.g. environmental and socio-cultural services). Degradation entails a process that negatively affects forest characteristics (e.g. growing stock and biomass, biodiversity, carbon stock). Forest degradation often leads to deforestation, as degraded forests are easily converted to agricultural lands (FAO, 2018_[175]).

national environmental policy and the environmental crimes law), to ensure that the production of such commodities did not contribute to deforestation. However, due to the lack of timely deforestation detection and a lack of co-operation between different government levels and agencies, these laws were relatively poorly enforced (West and Fearnside, 2021^[147]). There was also a lack of designated property rights, outlining by whom and how forests may be used and identifying the agency responsible for managing, protecting and enforcing laws in the designated area (Pacheco and Meyer, 2022^[148]) (Azevedo-Ramos et al., 2020^[149]). All together, these elements led to an increase in agricultural expansion, which accumulated to high deforestation rates in 2004 (West and Fearnside, 2021^[147]).

One of the cornerstones of the decrease of deforestation rates from 2004-14 was the implementation of the Action Plan for Prevention and Control of Deforestation in the Legal Amazon (PPCDAm). The cross-cutting nature and complexity of deforestation in Brazil led to the realisation that environmental agencies and policies could not solve the problem alone (Ministry of the Environment, 2016^[150]). Thus, the development of the PPCDAm was conducted as a collaboration between 13 ministries, and the federal, state, and municipal agencies, thereby taking a whole-of-Government approach (Gandour, 2021^[143]). The PPCDAm focused on three main areas: 1) territorial and land management; 2) environmental monitoring and law enforcement; and 3) sustainable production, with a fourth area added in 2016 (regulatory and economic instruments). The PPCDAm introduced many new and effective policies to fight deforestation over its four phases of implementation (2004-8; 2009-11; 2012-15; 2016-20) (Gandour, 2021^[143]). Such a holistic approach is likely to have increased policies' effectiveness, by aiding in policy alignment, technical capacity, and policy enforcement by different stakeholders (Ellis, Lo Re and De Lorenzo, 2022^[13]) (OECD, 2020^[145]). The following paragraphs describe the PPCDAm policies and their effect more in depth.

Most deforestation in the Amazon has been unauthorised, thus illegal, and a combination of monitoring, regulations, enforcement, and support policies under the PPCDAm led to decreasing deforestation rates from 2004-14. A primary challenge for the Government has been to detect, locate and reach new deforestation in time (Gandour, 2021^[143]). The implementation of a monitoring system for almost Real-time Detection of Deforestation (DETER) addressed this problem by sending government authorities deforestation alerts. DETER therefore provided the government with the information necessary to act and enabled a more cost-efficient use of resources on the ground. This helped increase law enforcement and effectively contributed to reducing deforestation (Assunção, Gandour and Rocha, 2019^[151]). The government also extended protected territories³⁸ in high deforestation regions, using these as deforestation barriers. Although this restricted deforestation within protected territories, it increased deforestation in unprotected territories (Cisneros, Zhou and Börner, 2015^[152]). In 2007, the Government identified "priority municipalities" that had concentrated forest losses in or around the Amazon. These municipalities became subject to more rigorous monitoring, law enforcement, as well as prevention and management efforts (Gandour, 2021^[143]), helping to contain deforestation within these municipalities (Assunção and Rocha, 2019^[153]) (Cisneros, Zhou and Börner, 2015^[152]). In addition to these initiatives, compliance with environmental conditions³⁹ were also added to agricultural support policies (i.e. rural credit) in 2008, aiming to ensure that such support did not contribute to deforestation. This conditional rural credit effectively helped contain deforestation.

Several other public policy efforts have also been deployed; however, less robust evidence exist for their effect on deforestation (Gandour, 2021^[143]). These policies include land tenure registration in the Rural Environmental Registry (Cadastro Ambiental Rural (CAR)); payments for ecosystem services (e.g. Reducing Emissions from Deforestation and Forest Degradation in developing countries (REDD+)) (Simonet et al., 2018^[154]), Bolsa Verde (Wong et al., 2022^[155]), and Bolsa Floresta (Cisneros et al.,

³⁸ Refers to both protected areas and indigenous lands.

³⁹ The rural credit, which had previously supported agricultural activities, became conditional upon the proof of compliance with environmental and property rights regulations.

2019^[156]); and zero deforestation commitments by various industries (e.g. soy production (Heilmayr et al., 2020^[157]) and livestock industry (Gibbs et al., 2015^[158])). Furthermore, at COP26, 144 countries, including Brazil, signed the Glasgow Leaders' Declaration on Forests and Land Use, aiming at halting and reversing forest loss and land degradation by 2030 (UNFCCC and UK Government, 2021^[159]). Not only did the signing of this agreement entail Brazil's acknowledgement of the need for additional efforts to conserve forests, but it also helped raise funding for such efforts (Foster and Laboissière, 2021^[160]). Although the effect of this declaration cannot be estimated at this point in time, it did help raise the profile of the deforestation issue and it also added additional pressure on forestry nations, such as Brazil.

Brazil's effective deployment of policies to reduce deforestation could provide valuable lessons for other countries wishing to tackle deforestation. Fighting deforestation requires the deployment of a multitude of policies across Brazil as well as the enforcement of these policies. The following key lessons from deforestation in Brazil could be discussed in the global dialogues or in the investment-focused events:

- **A whole-of-government approach with the interaction between and across governance levels is essential.** When creating a deforestation action plan, it is vital to ensure an inclusive process between government levels as well as across government agencies. The co-ordination between national, sub-national governments as well as across ministries and other stakeholders could increase policy effectiveness (e.g. via policy alignment). Furthermore, fighting deforestation across a country or forest municipalities is more effective, as deforestation activities are drawn to lenient areas.
- **Policies against deforestation are important, yet policy enforcement is key.** To reduce deforestation, it is crucial to establish legislation, incentives, and disincentives. Such policies could for instance entail national and sub-national legislation, conditional support, or performance-based incentives. However, capacities and support is needed to create these, which in the case of Brazil originated from the engagement with various government levels, ministries and other stakeholders. Yet, most importantly, for these deforestation policies to be effective, enforcement is key.
- **Technology can help fight deforestation activities more cost-efficiently.** Monitoring extensive forests without monitoring technology requires additional resources, and deforestation activities might first be discovered when the damage is done. Deploying a monitoring technology, such as DETER, could help target law enforcement related to deforestation and thus save resources.

4.4. International initiatives and coalitions

In addition to country-specific examples, international climate mitigation initiatives and coalitions could also generate significant climate action globally and thereby contribute to accelerated mitigation ambition and action. Synergies could be built between these initiatives and the MWP. For instance, the MWP could benefit from lessons learned in international initiatives and coalitions. Furthermore, showcasing such initiatives and coalitions in relevant MWP events could also encourage broader participation in the shared initiatives and coalitions, increasing the coverage of such initiatives and coalitions. Although various initiatives and coalitions can differ widely in terms of their scope, coverage and participation, they aim to bring various stakeholders together and encourage climate action by setting goals to guide stakeholders' interactions and actions. These stakeholders could be at the national or sub-national level and can include both public and private actors.

International initiatives and coalitions could help in a variety of ways to accelerate dissemination and deployment of promising mitigation actions. These could, for example help speed up innovation via co-ordinated development and testing of specific mitigation technologies or systems or contribute to creating larger economies of scale through co-ordinated deployment. International initiatives or coalitions could also contribute to building stronger incentives for investments as well as generate international finance to support wider development. Furthermore, they could also encourage different stakeholders globally to

pursue mitigation actions, that otherwise may not have occurred, thereby helping to build momentum regarding mitigation deployment. Examples of different international initiatives and coalitions along with their current progress are outlined in Table 12. As can be seen, these initiatives and coalitions have resulted in increased policy actions and commitments, but given that they are all relatively new, an assessment of the emissions mitigated through these actions have not yet been conducted.

International co-operation can also exist between sub-national initiatives, e.g. at regional, local and city level, and these also contribute to climate action and stakeholder mobilisation. Climate action at the sub-national level can face several barriers, particularly regulatory barriers as the policy framework is mainly set at the national level. For instance, a city's project to implement more renewable energy would, to a certain extent, be dependent on a national regulatory framework that allows cities to purchase electricity from independent power producers (Ellis, Lo Re and De Lorenzo, 2022^[13]). Yet, operating on a different scale also brings different opportunities. For example, targeted actions at city level might enable faster deployment, if cities can finance such actions themselves. In Table 12, examples of regional, local and city level initiatives and coalitions and their progress are displayed. These initiatives and coalitions have resulted in many actions in various cities and regions globally, which is likely to have led to a reduction in GHG emissions. Yet an overall assessment of emissions mitigated through these activities has not yet been conducted, and an examination of each activity is beyond the scope of this report. Nevertheless, lessons from the international initiatives and coalitions at national and sub-national levels could provide important lessons for the MWP on how mitigation action can be encouraged across various countries and at different levels.

Table 12. Overview of selected international, regional and local initiatives and coalitions

Initiative	Description	Progress or lessons
Operational level: international		
The Breakthrough Agenda	<p>The Breakthrough Agenda aims to secure the 1.5°C temperature goal by supporting the halving of global emissions by 2030 and reaching global net zero emissions by 2050. It tackles these objectives through a sectoral approach in five key emitting sectors (i.e. power, steel, road transport, hydrogen, and agriculture), with one or several countries leading each Breakthrough.</p> <p>Each sector has priority actions, and a detailed roadmap, enabling conditions, co-ordinating initiatives and collaborating governments outlined to take these priority actions forward (UN High-Level Climate Champions, 2023^[161]). These enabling conditions include, amongst other items, action plans and aspects related to finance, infrastructure, innovation and the supply- and demand-side.</p>	<ul style="list-style-type: none"> Progress on each sectoral Breakthrough is measured through the enabling conditions (as the initiative is new it is not yet possible to assess the outcome of long-term commitments). One example is provided below. Road transport Breakthrough: Aims to have accessible, affordable, and sustainable Zero Emission Vehicles (ZEV) worldwide to make ZEV the new norm of road transportation; Action: 25 automobile (and components) companies adopted science-based targets⁴⁰; 39 national governments and 13 automotive manufacturers signed the ZEV Declaration⁴¹; 123 companies committed to EV100⁴²; IRENA Collaborative Framework on Critical Materials for the Energy Transition has been developed; direct spending on EVs in 2021 reached USD 270 billion; and four relevant IEA Technology Collaboration Programmes are currently underway (IEA, IRENA and UN Climate Change High-Level Champions, 2022^[162]). The progress of each "breakthrough" is regularly reviewed, generating recommendations for future actions, thus enabling a cyclical process that can facilitate learning by doing. For instance, the first set of recommendations from the annual progress report (IEA, IRENA and UN Climate Change High-Level Champions, 2022^[162]) was answered by an updated set of Priority Actions at COP27.
Powering Past Coal Alliance (PPCA)	<p>The Powering Past Coal Alliance (PPCA) gathers a membership of national (48) and sub-national (49) governments as well as utilities, financiers, and other private sector actors (171) to speed up the global transition away from coal.</p> <p>Three main tools are mobilised: lessons learned and solutions to barriers for members wanting to transition; the PPCA Declaration which includes a commitment to phase out coal by 2030 in the OECD and the EU and by no later than 2040 in the rest of the world; financial principles involving no new financial services for and investments in unabated coal-fired power and advocacy for the phase-out of existing capacity.</p>	<ul style="list-style-type: none"> Between the launch of the Alliance in 2017 and 2022, 75% of the coal power capacity in OECD member countries of the PPCA has been retired or is in the process to be so by 2030, and the number of new coal power plant projects has also fallen by three quarters (Powering Past Coal Alliance, 2022^[163]). Despite this progress, global coal power capacity that had been on the rise in the past decade kept rising in the years that followed PPCA launch, with a global coal power capacity of 2,002,229 MW in 2017 (Carbon Brief, 2020^[164]) and 2,076,054 MW in 2023 (Global Energy Monitor, 2023^[165]) equivalent to an increase of 3.7% overall.

⁴⁰ In line with the Science-Based Targets initiative (SBTi), companies can develop science-based targets GHG reduction targets. SBTi helps develop and validate the science-based targets, and progress is then tracked annually (SBTi, n.d.^[208])

⁴¹ Signatories commit to collectively reach the target of all sales of new cars and vans being zero emissions by 2035 and 2040 in leading markets and globally (Accelerating to Zero Coalition, 2021^[205]).

⁴² Members commit to either transition their fleets to EVs and/or install charging at their facilities by 2030 (Climate Group, 2023^[204]).

Global Methane Pledge	The Global Methane Pledge (GMP) is an international initiative that aims to support the 1.5°C temperature goal by committing to collectively reduce global methane emissions by at least 30% from 2020 levels by 2030. It relies on the principle of a collective reduction target achieved through actions taken at the national level framed by voluntary, non-binding pledges, with progress being reviewed at annual ministerial meetings. The GMP currently gathers pledges from 150 countries.	<ul style="list-style-type: none"> The GMP was launched in 2021, and while no causal link can be established, there has been a large increase in the number of new policies and measures related to methane abatement between 2020 and 2021/2022 (IEA, 2023_[104]). Over 50 countries have or are currently developing national methane action plans (United States and European Union, 2022_[166]). Additional international commitments were developed in parallel of the GMP in 2022 through the Joint Declaration from Energy Importers and Exporters on Reducing Greenhouse Gas Emissions from Fossil Fuels⁴³ and the GMP Energy Pathway⁴⁴. The GMP has thus generated both momentum and also financial support with USD 328 million mobilised by philanthropies for the GMP, alongside another USD 60 million announced by countries and supporting organisations to help fund the GMP Energy pathway (IEA, 2023_[104]).
Operational level: regional, local and city level		
C40	<p>C40 gathers cities across the globe for climate action whose mayors aim to reduce GHG emissions⁴⁵ and overall build more resilient, equitable and healthy cities.</p> <p>The network aims to raise ambition and scale up climate action through the sharing of best practices and technical assistance, as well as signatory cities' commitment to common programmes and targets. The work of C40 also focuses on influencing the global agenda through advocacy and by facilitating access to finance.</p>	<ul style="list-style-type: none"> C40 Leadership Standards went into force in 2021, outlining mandatory C40 membership conditions. One of these conditions includes the development, and regular update, of a climate action plan aligned with the 1.5°C temperature target of the Paris Agreement (C40 Cities, 2021_[167]). Subsequent to this, 97 member cities have developed climate action plans, which contributes to the 'Cities Race to Zero' campaign. Starting lines and targets can differ between cities; for instance Paris (France) intends to halve its emissions in 2030 compared to 2004 levels (City of Paris, 2020_[168]), while Medellín (Colombia) sets the goal of a 20% emissions reduction based on 2015 levels (Municipio de Medellín, 2021_[169]).
ICLEI	<p>ICLEI is a network of over 2500 local and regional governments that account for more than a quarter of the global urban population. It aims to support sustainable urban development.</p> <p>ICLEI works to foster peer-exchange among its members, as well as partnerships and capacity building with the support of a team of experts on the ground. It connects its members through city-to-city or city-to-region formats, but also engages in alliances with e.g. IOs, national governments, finance institutions, civil society and the private sector.</p>	<ul style="list-style-type: none"> 283 activities in line with one or more of the five ICLEI pathways (low-emission, nature-based, equitable, resilient, and circular pathways) reported since 2018. Examples of recent activities conducted include: developing a Massive Open Online Course dedicated on sustainable urban mobility and the reduction of GHG emissions from urban transportation (ICLEI, 2022_[170]); accompanying 9 cities in the drafting of roadmaps to 100% renewable energies by 2050 (ICLEI, 2023_[171]); and, supporting the conduction of a GHG inventory at city level (ICLEI, 2021_[172]).

Source: Authors

⁴³ Joint Declaration issued by the United States, the European Union, Japan, Canada, Norway, Singapore, and the United Kingdom that supports a set of measures to reduce GHG emissions, and particularly methane emissions related to fossil energy production and consumption (United States et al., 2022_[206]).

⁴⁴ The GMP Energy Pathway was launched in 2022 to catalyse methane emissions reductions in the oil and gas sector, to reinforce both climate action and energy security. Participating countries commit to the GMP Energy Pathway either via technical and financial resources, or by increasing national actions (IEA, 2023_[207]).

⁴⁵ Through the 'Cities Race to Zero' campaign, C40 cities are partners to the 'Race to Zero' campaign with the goal to halve global emissions by 2030. C40 supports members in developing a climate action plan, outlining a roadmap with domestic actions that enable them to contribute to this collective effort.

5. Conclusions

The Mitigation Work Programme (MWP) was established in 2021 at COP26, further fleshed out in 2022 at COP27, and includes multiple agreed events (e.g. global dialogues) and outputs (e.g. summary reports, co-chairs presenting at the annual ministerial round table (MRT)) every year between 2023-2026 – and potentially beyond. The MWP’s objective is to “urgently scale up mitigation ambition and implementation”. As such, it covers a potentially vast set of issues, spread across multiple sectors and gases. A key challenge for the MWP will be in narrowing down the scope of its individual events to facilitate actionable outputs.

In order for the MWP to be “fit for purpose” and reach its objective, there is a need for many actors to co-operate around several actions and conditions. In particular, a successful implementation of the MWP is likely to need the participation of a potentially very broad range of stakeholders from the public and private sector, including policy makers, implementers of mitigation activities, financial institutions, private sector investors and other stakeholders. Such broad participation would enable diverse perspectives to be shared and considered, and could help to build a shared understanding of the challenges and opportunities for urgently mitigating GHG emissions. However, broad participation alone does not necessarily lead to concrete implementation or enhanced ambition. To ensure actual take-up and implementation of the ideas and proposals generated through the MWP, it is important to create a supportive enabling environment at the national level, which could include financial and technical support and tools, policy incentives, and regulatory frameworks that encourage and facilitate action. In order to ensure that the MWP process is efficient, it will also be important for the MWP to build on – rather than replicate – the many already-existing structures, tools and modalities (as well as planned events) that are relevant to the objective of the MWP, within the UNFCCC (e.g. the Global Stocktake) and beyond (e.g. High-Level Champions’ Race to Zero, or the Breakthrough Agenda).

The MWP can benefit from the experiences and lessons learned from various initiatives and events which have occurred and are ongoing both within and outside the UNFCCC framework, related to the MWP’s objective. These lessons relate to the scope, focus, format of events, as well as key stakeholders involved. Some aspects of the agreed MWP relate to modalities and events with which Parties under the UNFCCC have considerable experience (e.g. global dialogues, summary reports). While there is less experience under the UNFCCC framework with investment-focused events, lessons can be drawn from the many such events held outside the UNFCCC framework. Such lessons include how to develop the partnerships needed to finance or implement mitigation programmes, policies and activities.

There is a huge potential range of the type of activities that could be undertaken under the MWP, as well as their number, focus, scope and format. The CMA4 decision on the MWP leaves considerable leeway to the two co-chairs of the MWP (who will change every two years) to guide the MWP going forward. This paper highlighted key questions and options relating to the focus, structure, and format of selected outputs (e.g. global dialogues, summary reports, etc.) that have been mandated for the MWP as well as for the participation of stakeholders. Going forward, it may be worthwhile for the different events held under the MWP to encompass a broad set of activities that aim at overcoming barriers across the range of steps needed to get a mitigation activity off the ground.

5.1. Issues relevant to both the global dialogues and the investment-related events

There are several issues that are relevant to organising both the global dialogues on mitigation, and the investment-related events. For both these sets of events, the organisers will need to make choices related to substance and process. In terms of substance, choices will include:

- the precise aim of the event, whether there are already planned events with similar or relevant aims, and how the MWP-related event could best be scheduled in relation to these;
- the topic(s) to be covered, e.g. under the announced focus for dialogues in 2023 (accelerating a just energy transition) and for forthcoming dialogues, as well as how broad or narrow this is: a more narrowly-focused event is likely to lead to more focused discussions, and may be more attractive to the relevant stakeholders – but may not be on a topic that is of interest to a wide variety of countries;
- if the different events to be held under the MWP during their mandate as co-chairs are linked, and if so, how.

In terms of process, those guiding the organisation of events will need to decide:

- who the key stakeholders that need to be included in the event(s) are in order for the events to meet their aims, what their role is;
- how any active stakeholders will be chosen to participate in the event(s) – e.g. whether there is some sort of “application” or “competition” for active roles (and if so, how to organise this);
- format(s) for the event that will facilitate it meeting its aims, encourage active participation and constructive engagement from relevant stakeholders, and go beyond issuing statements but focusing instead on deliberating solutions and strategies for addressing specific issues;
- length and scheduling of the event.

Fortunately, both for the global dialogues, and for the investment-focused events, there is a lot of relevant experience that can be built on - both inside the UNFCCC process as well as outside. This means that there will be many relevant possible events that the MWP co-chairs could usefully hold events in the margin of. Thus, the challenge may be determining which such events would present the best opportunity in order to ensure that the MWP reaches its objective. If events are organised in the margins of other events, some relevant stakeholders are likely already present, however, it could still take significant resources to plan and organise the global dialogues and the investment-focused events.

There are also challenges that will be common to both sets of events, relating to how exactly the MWP can drive rapid up-scaling of action on the ground. This is because, as illustrated by the case studies explored in this paper, there can be considerable time lags at key points in the lifecycle of a mitigation project. In particular, there can be long time lags associated both with increasing the deployment of commercially available mitigation technologies, and in accessing finance.

Another common challenge for the global dialogues and the investment-focused events is to ensure that the appropriate actors participate to these events in order to have “focused” discussions on actionable solutions. For Parties, this could mean extending participation beyond UNFCCC negotiators, to e.g. sectoral ministries that implement mitigation actions (e.g. Ministries of Economy, Planning, Investment, Trade or Finance). For NPS, the selection of experts could be quite broad. One option for those guiding the organisation of MWP events to maximise the chances of attracting the appropriate actors to the global dialogues and the investment-focused events is to choose a narrow focus for the topics, and to hold the events under the MWP back-to-back with other relevant events (as seen with the first 2023 global dialogue and investment-focused event that will be held in conjunction with SB58 in June 2023).

5.2. Issues related to the global dialogues

As highlighted above, a crucial first issue for the organisers of the global dialogues (the UNFCCC secretariat under the guidance of the MWP co-chairs) is to determine the scope and focus of such dialogues. Annual written submissions are requested on this, and those available express preferences for broad topics (e.g. “just transition”) that, would not necessarily lead to a “focused exchange of views, information and ideas”. The announced focus for dialogues taking place in 2023 will be on “accelerating [a] just energy transition”. Focusing on a specific sub-sector (e.g. methane reduction from oil and gas production) or a specific theme (e.g. legislative frameworks that have successfully been used to facilitate deployment of specific technologies or systems to reduce emissions in a given sector) might more easily facilitate a “focused exchange of views” at the global dialogues. However, the co-chairs will face trade-offs when selecting between a topic that is broad enough to be relevant for many Parties versus one that is narrow enough to allow for a “focused” exchange.

The format of the global dialogues can also influence the extent of information exchange and the level of participation. The global dialogues would need to be designed in a way that attracts both high-level and technical participation by domestic policy makers, practitioners and implementers of relevant mitigation actions. For Parties, participation could then extend beyond UNFCCC negotiators to delegates from e.g. Ministries of Economy, Planning, Investment, Trade or Finance. Choosing a narrow focus could also help the organisers to identify who would be the best actors to involve, especially among NPS. To maximise broad participation both at high and technical level, co-chairs could consider organising the global dialogues over multiple consecutive days and back-to-back (as seen with the first global dialogue and investment-focused events organised in conjunction with SB58) or in parallel with other multilateral events (e.g. the UN Secretary General’s Climate Ambition Summit, the Regional Climate Weeks, G20, Clean Energy Ministerial). A mix of plenary presentations, parallel small group discussions and written submissions ahead of the global dialogues could maximise the interaction and exchange of views among stakeholders. To optimise interactions, co-chairs could encourage Parties and NPS to avoid reading pre-prepared statements and to focus instead on the presentation of action-oriented best practices and lessons learned in how they overcame challenges to scale up and implement urgent mitigation actions.

The timing of the global dialogues will also be key. For the first global dialogue of each year there will always be a significant time pressure to take decisions on the many recurrent open issues (e.g. participation, format, etc.), because of the short time between the decision of the co-chairs about the topics (March) and the SBs (June – as the first global dialogue is to be held prior to the SBs). Co-chairs could consider focusing the first global dialogue of each year on “light” cross-cutting issues (e.g. institutional aspects, tools to identify capacity building needs) and having a different format than for dialogues later in the year. Moreover, the CMA4 decision invites the MWP co-chairs to make a presentation on the annual MWP report at the annual high-level MRT. It is thus important that the timing of the dialogues along the year are arranged in a way that allows the MWP co-chairs to have enough time to prepare a presentation summary to inform discussions at the MRT and for Parties and NPS to react to the annual report. Furthermore, it is also important that there is sufficient time to provide a basis for a substantive decision on the MWP to be put forward for consideration at the subsequent COP.

The follow-up of the global dialogues can also influence their impact over time. Follow-up would allow for reflection on the outcomes of the MWP. Previous experience of discussions under the UNFCCC framework has highlighted difficulties in establishing a causal link between one event and a given outcome a posteriori. This has implications for the MWP, as it may be challenging to link events held under the MWP with the implementation of specific mitigation activities.

5.3. Issues related to the investment-focused events

The 2022 CMA MWP decision indicates that the MWP will include “investment-focused events ... with a view to unlocking finance, [...] overcoming barriers, [...] identifying investment opportunities”. These different aspects cover a vast range in the scope and content of potential events, and all could be useful in helping to meet the MWP’s objective. Moreover, there are already many initiatives (e.g. GFANZ, MDB-organised investment roundtables, sector or country-specific events) by a wide variety of stakeholders (public and private; sub-national, national and international) aiming to mobilise greater levels of investment for programmes, policies or activities relevant to climate mitigation. Ensuring that the MWP investment-focused events learns lessons from the results of other investment-focused events, and builds on these other events will be key.

Another key decision for MWP co-chairs will be on whether to focus investment-related events in areas that are likely to deliver the largest uptake of GHG mitigation in a short time, whether to prioritise a set of events that increase countries’ ability and attractiveness for investments in mitigation-related activities, or both. Such decisions will influence the countries, sectors and stakeholders needed to make such events a success, as well as the countries and sectors that are most likely to benefit from the outcomes of a specific event.⁴⁶ Events that aim to deliver investments to specific projects may lead to some specific “matchmaking” opportunities in selected countries. In contrast, events focusing on getting the policy, partnerships and finance enabling conditions in place to implement mitigation projects may be of relevance to a larger number of countries. Focusing different MWP investment-related events on different steps in the process needed to get mitigation actions off the ground could enable the set of MWP investment-focused events to benefit a wide range of countries. This is because countries’ regulatory frameworks are at different stages, so some countries may benefit more from discussions and information on “enabling” topics that are earlier on in a mitigation project lifecycle (e.g. defining and developing a supportive regulative and legislative framework), whereas other countries may benefit more from events that target later stages in a mitigation project lifecycle (e.g. financing and implementing a specific activity).

As for the global dialogues, a crucial first question for the organisers of these investment-focused events (the UNFCCC secretariat under the guidance of the MWP co-chairs and with the support of the high-level champions) is the need to decide the aim and specific focus of such event(s). Indeed, the organisers have significant leeway here, on both the topic(s) and number of such events to be held.

This paper has laid out five different types of possible aims of investment-focused events that could potentially fit under the broad CMA4 guidance for such events. These different aims include:

- Focusing on overcoming policy barriers to investments, e.g. show-casing promising regulatory and institutional frameworks to encourage investment in general;
- Focusing on overcoming barriers to investments for specific activity types, or in specific sectors. This could include disseminating lessons learned or good practices in mobilising or accessing finance for specific activities (including on which stakeholders to engage at what stage in the process);
- Focusing on overcoming barriers to accessing finance, e.g. by show-casing best practices in mobilising finance; tools to structure finance options; processes to design tenders etc.;

⁴⁶ For example, clarifying ownership of potential emission reductions or removals from offshore oil and gas production or from forests, may be an important pre-requisite in some countries in enhancing mitigation investment in those sectors. Events focused on such sectors would be of most relevance to countries where those sectors are key emission categories. There could be a significant time lag between such an event, modifying the associated regulatory or legislative framework in the sector, developing potential mitigation actions, and seeking investment for specific mitigation actions.

- Focusing on unlocking finance, e.g. developing high-level buy-in/support for mitigation-related policies, programmes or activities in specific sectors;
- Focusing on identifying investment opportunities, e.g. by “matchmaking” specific sectors/activity types (e.g. project-level developers, public financial institutions, private sector investors).

A second key question for the organisers of the investment-related events under the MWP are where and when to organise such investment-related events. This may in turn be influenced by what other events of similar scope are already planned outside the UNFCCC framework, as well as the MWP global dialogues. It may also be influenced by if and how the MWP co-chairs have decided to link a specific global dialogue and investment-focused event. For instance, the first global dialogue and the investment-focused event in 2023 has the same focus and is held in conjunction with SB58 in June 2023.

Decisions on the aim(s) of investment-focused events will impact where such events will most usefully be held, when, over what timeframe, with what format, and with what audience. While not mutually exclusive, covering more than one aim may require involvement of a number of different stakeholders, and could risk leading to an unwieldy event. Similarly, to the global dialogues, there are multiple ways that investment-focused events could be structured. It will be important that the MWP avoids duplicating efforts or recreating existing structures.

5.4. Insights from replication/scale up case studies

In order to meet the ambitious aims of the MWP, increased deployment of existing low-GHG technologies and systems is needed. The success of the MWP will also depend on how Parties, NPS as well as international initiatives and coalitions replicate and scale up good examples of mitigation actions in other contexts. In the context of the UNFCCC, there have been already several previous efforts to share best practices, but the impact of such efforts is difficult to gauge due to the challenge of assessing the causality between information shared and implementation of mitigation action on the ground. Ensuring that information sharing and exchanges of experiences under the MWP is impactful (e.g. leads to action on the ground) will be influenced by several factors. These include what type of information is shared and the stakeholders this information is shared with at the various MWP events (and the ability of these stakeholders to implement good practices disseminated at these events). The impact of the MWP will also be influenced by the possibility of linking the global dialogues with investment-focused events in order to create the right enabling environment to implement mitigation action. Information shared under the MWP could highlight lessons learned and the effectiveness of international initiatives and coalitions (e.g. Breakthrough Agenda, and C40) at different levels (national and sub-national governments) where different Parties and NPS work together to collectively contribute to certain breakthroughs. Information disseminated could also highlight the effectiveness of specific policies, because providing clear and compelling evidence of the success of specific mitigation policies in reducing GHG emissions could help inspire and guide the implementation of similar policies in other contexts. The examples could also emphasise the scalability of successful policies because this could help encourage decision-makers to adopt them in their own contexts. This could involve exploring the factors that contributed to the success of a policy in a specific context, and identifying how those factors could be replicated elsewhere. To ensure that the information shared under MWP events could lead to enhanced mitigation action, it would be important that such information highlights practical information that could be relevant to and actionable by others.

This paper has outlined examples from three different country sub-sectors (methane abatement in Canada, electric vehicle uptake in Norway, and reduced deforestation in Brazil), where rapid scale-up of mitigation actions have taken place. Furthermore, the paper also highlighted some of the many existing international climate mitigation initiatives and coalitions, which engages various stakeholders with the aim of accelerating dissemination and deployment of promising mitigation actions. Although each sub-sector case

had specific circumstances and different starting points, each case also offered lessons and common elements, which could be useful for replicating such activities in different national contexts, in particular:

- Collaboration and communication between multiple types of stakeholders (government and NPS) as well as both horizontal and vertical co-ordination between different levels of government in a country is important;
- Deployment and enforcement of policy packages to encourage a specific activity over an extended period of time; as well as
- Technological advancements.

Together, these three elements above, and other case specific elements contributed to creating an enabling environment that allowed for enhanced mitigation action on the ground. Yet, as evident in one of the cases (electric vehicles in Norway), the uptake of new low-carbon technology can have a long lead time for widespread implementation. A key challenge in successfully implementing the MWP is encouraging countries to learn from each other, and thus reducing the time lag needed to implement new low-carbon technologies and systems. Some international initiatives and coalitions have also resulted in increased mitigation actions at different levels – actions which may not have occurred were it not for these initiatives. Continued efforts and determination at the domestic policy level, as well as at the international level will be needed to achieve the MWP's ambitious aim. What could make the information sharing and exchanges of experiences different and impactful (e.g. lead to action on the ground) under the MWP is, among others, the possibility to link with investment-focused events, which could create the right enabling environment to implement mitigation action.

This paper has highlighted that there is a wide range of possible dialogues and events that could be held under the MWP, both in terms of substance as well as format. In particular, events could range from those focusing on improving general or sector-specific enabling environments to encourage increased uptake of and investment in mitigation policies and programmes to those focusing on increasing the uptake of and investment in specific mitigation activities. Decisions that the MWP co-chairs will take on the scope and format of events under the MWP will impact their direct and indirect impact, as well as the relevance of these events to particular countries and stakeholders. Events under the MWP will therefore face trade-offs between facilitating short-term outcomes that could be traced back to MWP events (e.g. investment-focused events that focus on “matchmaking” project proposals and potential funders), and developing events that may be of relevance to a larger number of countries, and/or have greater impact during this decade for delivery, but where causality is more difficult to assess. In addition, the large number of relevant initiatives and events ongoing outside the UNFCCC, means that a careful mapping and co-ordination is needed in order to ensure that MWP events build on, rather than duplicate, events held elsewhere. Balancing these different priorities will be a key task of the MWP co-chairs to ensure that the MWP urgently increases mitigation ambition and implementation.

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