



The role of transparency in avoiding a COVID-19 induced food crisis

21 September 2020

Early in the COVID-19 outbreak, there were concerns that the health crisis would develop into a large-scale food crisis similar to the 2007-08 food price crisis, when panic buying and counterproductive policies exacerbated initial supply disruptions. While food supply chains have seen disruptions, and there are future risks that require attention, a food price crisis has been avoided so far, in part thanks to improved transparency in global staple crop markets. Transparency on market conditions and policies is critical in helping reduce market uncertainty, exposing bottlenecks and highlighting risks, all of which help market participants and policy makers develop more effective responses in times of crisis. More broadly, transparency is essential for global markets to work and provide a resilient supply of affordable food. Yet, transparency is not automatic: it requires investments in gathering comparable information, monitoring market and policy developments, and communicating clearly about the findings. This note discusses the importance of transparency, and the investments it requires, using the example of the Agriculture Market Information System (AMIS), a G20 initiative created in response to the 2007-08 food price crisis. While AMIS focuses on major staple crops (wheat, maize, rice and soybeans), experience with AMIS can provide insights for the wider agriculture and food sector.



Key messages

- Transparency on market conditions and policies in food and agriculture markets can help reduce market uncertainty, expose bottlenecks and highlight risks. This is essential to avoid panic buying or counterproductive policy responses, and to allow market participants and policy makers to develop more effective responses in times of crisis.
- Transparency is an essential underpinning of well-functioning global markets able to provide a resilient supply of affordable food.
- Transparency is not automatic: it requires investments in gathering comparable information, monitoring market and policy developments, and communicating clearly about the findings.
- The Agricultural Market Information System (AMIS), a G20 initiative created in response to the 2007-08 food price crisis, plays an important role in supporting transparency for the world's major staple crops (wheat, maize, rice, and soybeans). Thanks to consistent reporting and monitoring on market indicators and policy decisions, AMIS monitors market conditions and identifies where bottlenecks and risks are emerging, helping policy makers to identify priorities for early attention and policy responses.
- During extreme situations as the COVID-19 outbreak, market conditions change quickly, and increasing the frequency of monitoring and reporting is necessary to support informed decision-making. This is more easily achieved where there is an existing infrastructure to build on or scale up, underscoring the importance of investing upfront in the necessary mechanisms and institutions. Timely information to underpin decision-making in times of crisis depends on the investments made in calmer times.
- Risks to food security continue to accumulate, driven by the economic downturn that threatens access to food for the poor and vulnerable. Therefore, efforts to increase transparency need to continue across the entire agro-food sector to avoid or minimise the risks of global food crises, now and in the future.

What is the issue?

Agricultural and food markets have been particularly affected by the COVID-19 outbreak: a lack of seasonal labour has hampered harvesting; meat-processing facilities have been closed due to outbreaks; air freight for high-value perishable products has been heavily disrupted; and confinement measures have forced a large reorientation of consumer demand from restaurants and food service providers to retailers (OECD 2020a, 2020d, 2020e). Timely policy responses have played an important role in ensuring that these challenges have not resulted to date in major global breaks in the availability or prices of food. Effective responses by policy makers, consumers, producers and traders require access to reliable information about market conditions, such as production and stock levels, demand, trade flows, and policy measures being introduced around the world. This transparency helps to reduce market uncertainty, expose bottlenecks and highlight risks. It also helps to avoid panic buying and counterproductive policy interventions. Yet, achieving this transparency requires ongoing investments in gathering comparable information, monitoring developments, and communicating market conditions clearly. The availability of reliable information in times of crisis depends in large part on investments made during calmer times.

This policy brief discusses the importance of transparency and the different requirements for effective information-sharing, using the example of the Agricultural Market Information System (AMIS). The OECD, together with the World Trade Organisation (WTO), leads the work on policy monitoring, reporting and



analysis for the AMIS initiative. While this initiative focuses on the world's major staple crops (wheat, maize, rice and soybeans), experience with AMIS can provide insights for the wider agriculture and food sector.

Box 1. The Agricultural Market Information System (AMIS)

The Agricultural Market Information System (AMIS) is an inter-agency platform that aims to avoid or defuse food price crises by enhancing the transparency of food markets and ensuring effective policy responses. To achieve this, AMIS provides timely information on the global supplies of staple crops (wheat, maize, rice and soybeans) and improves policy coordination in international food markets.

Launched in 2011 by the G20 Ministers of Agriculture against the background of the food price spikes of 2007/08 and 2010, AMIS is composed of 28 countries: the G20 members plus Spain, and seven additional major exporting and importing countries of AMIS crops (Egypt, Kazakhstan, Nigeria, the Philippines, Thailand, Ukraine, and Viet Nam). Together, AMIS participants represent around 80-90% of global production, consumption and trade volumes of the targeted crops.

The AMIS Secretariat consists of ten international organisations, including the OECD, which each bring their comparative advantage and expertise to the initiative.

For more information: www.amis-outlook.org.

Note: These ten international organisations are: the Food and Agriculture Organization of the United Nations (FAO), Group on Earth Observations Global Agricultural Monitoring (GEOGLAM), International Food Policy Research Institute (IFPRI), International Fund for Agricultural Development (IFAD), International Grains Council (IGC), Organisation for Economic Co-operation and Development (OECD), United Nations Conference on Trade and Development (UNCTAD), the World Bank Group, World Food Programme (WFP), and World Trade Organization (WTO).

Why transparency matters

Transparency reduces market uncertainty

In agricultural and food markets, information on both market conditions and policy developments is crucial to obtain a complete overview of the market situation. Market information on supply and demand balances, prices, and trade and stock volumes needs to be complemented by information on agricultural domestic and trade policies to form a complete picture of the current situation and to anticipate how markets might evolve in the short and medium term.

Consistently publishing this type of information increases transparency and reduces market uncertainty, thereby lowering the risk of people and governments taking damaging decisions based on incomplete information. Conversely, poor access to information can lead to counterproductive decisions with detrimental impacts on people and markets. A striking example related to staple crops is the surge in rice prices during the 2007-08 food price crisis. At that time, even though rice supplies were abundant, people, firms and governments started to stock up on rice because they had witnessed soaring wheat and maize prices in the face of shortages due to poor harvests and assumed there would be rice shortages as well. As a result, rice prices started to increase. In response, several large rice exporting countries then implemented export restrictions, thereby effectively reducing supply in the global market and causing the international price of rice to rise significantly, affecting the food security of millions of people around the world for whom rice is a key staple. Had timely, trusted information on the extent of rice stocks and



production been available and widely communicated, panic, hoarding and export restrictions and the highly damaging price spikes they caused all could have been avoided.

In the initial period following the global spread of the COVID-19 outbreak, there were multiple reports of panic-buying and hoarding behaviour by consumers, particularly in the first few weeks when lockdowns were announced and implemented. Staple foods, such as wheat-based pasta or rice, were popularly hoarded products because of their long shelf life and because people were anticipating shortages. To halt panic buying and prevent the creation of artificial shortages, some countries started publishing regular reports on supply and demand balances,¹ and several countries with public stocks of grains announced the levels of grains stored to reassure their citizens that there was sufficient availability to meet domestic demand. Some of those countries (e.g. India, Indonesia, Nigeria, Russian Federation (hereafter “Russia”), and Ukraine) also began to distribute food staples from their public stocks to prevent panic buying that could lead to artificial shortages and price increases (Table 1).

Table 1. Public stock distribution by AMIS countries in response to the COVID-19 outbreak

Country	Commodity	Description
India	Food grains	On 18 March 2020, the Government of India decided to distribute the six month quota of subsidised food grains in one go to the beneficiaries of the National Food Security Act in order to counter COVID-19-induced panic buying and prevent a price increase.
India	Food grains	On 25 March 2020, the Government of India increased the amount of subsidised food grains to the beneficiaries of the Public Distribution System from 5 to 7 kg per month to ensure a sufficient supply of food grains during the lockdown caused by the COVID-19 outbreak.
India	Food grains and pulses	On 26 March 2020, India's Finance Minister allocated INR 1.7 lakh crore (around USD 22 billion) to the PM's Gareeb Kalyan Scheme. The Scheme included both cash transfers and food distribution. Under the scheme, 800 million poor people received 5 kg wheat or rice and 1 kg of pulses for free every month from 1 April until 30 June. On 30 June, India extended the free rations regime until the end of November.
Ukraine	Wheat flour	On 27 March 2020, the Ukrainian Economy Ministry announced that the state-run grain firm DPZKU and Agrarian Fund would sell 128 000 tonnes of wheat flour on the local market, aiming to curb a jump in prices caused by fears over the rapid spread of COVID-19.
Russia	Grains	At the end of March 2020, Russia announced that it would sell 1 million tonnes of grain from its state stockpile of 1.8 million tonnes on the domestic market to ensure adequate supplies and keep prices down amid the coronavirus pandemic.
Nigeria	Grains	On 1 April 2020, the President of Nigeria announced the release of 70 000 tonnes of grains from its national strategic reserves in the coming days in order to counter the potential for food shortages arising from the spread of COVID-19.
China	Soybean	On 7 April 2020, China, for the second time this year, asked its state-owned stockpiler Sinograin to release to the state-owned crusher Cofco 0.5 million tonnes of its own soybean reserve to offset the effect of low stocks due to shipment delays from Brazil and logistic disruptions amid the COVID-19 pandemic.
Indonesia	Rice	Indonesia's state food company Bulog has doubled the volume of rice stocks released for public distribution as part of its efforts to stabilize prices amid the COVID-19 outbreak. As of 17 May 2020, Bulog had distributed 596 305 tonnes of rice from stocks, compared to around 225 685 tonnes during the same period last year.
China	Maize	On 28 May 2020, China started auctioning maize (up to 4 million tonnes) from its state reserves to address tightening corn supplies.

Source: Agricultural Market Information System (AMIS).

At the international level, AMIS has been regularly publishing information on market and policy developments. Furthermore, all the international organisations that make up the AMIS Secretariat, along with member countries, have been communicating consistent messages on the state of global markets for staples in the context of COVID-19. A key message has been that the global situation for staple crops is

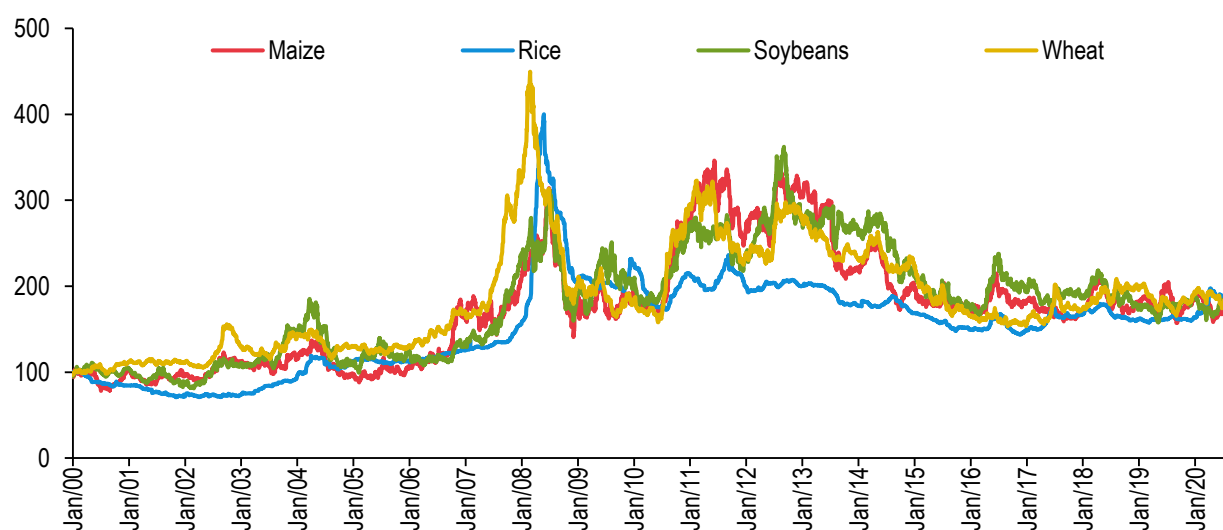
¹ Japan's Ministry of Agriculture, Forestry and Fisheries, for example, published online daily updates of the supply and demand for major products (rice, noodles, pasta, milk, fishery products and others) in order to avoid panic buying (https://www.maff.go.jp/saigai/n_coronavirus/index.html#c00, in Japanese).



very different now compared to the food price crisis of 2007-08. Whereas the situation in 2007-08 was characterised by poor harvests in several key producers, low cereal stocks, a rising oil price, export restrictions, and the depreciation of the US Dollar, the current situation for AMIS crops is much more favourable. Ample global cereal stocks, low energy prices, and good production prospects mean that prices are much lower now than during the food price crisis (Figure 1) and stocks and production levels are both well above what they were in 2007-08 (Figure 2) and are even close to or at record levels for wheat, maize and rice.

Figure 1. Maize, rice, soybeans and wheat price indices (daily)

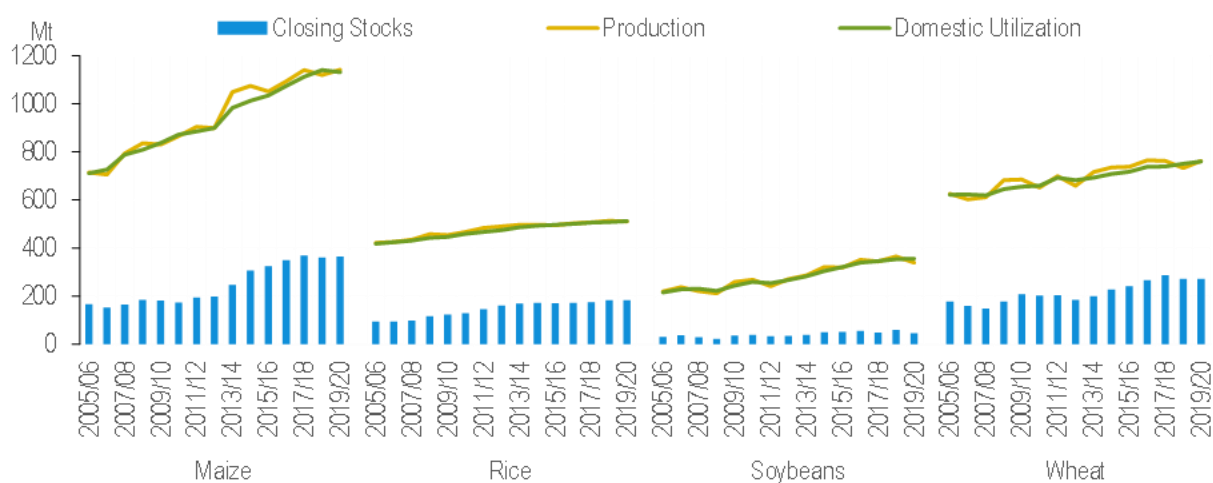
3 January 2005 to 16 September 2020 (Jan 2000 = 100)



Source: International Grains Council (IGC).

Figure 2. Production, stocks and utilisation of maize, rice, soybeans and wheat

2005-2019/20



Source: Agricultural Market Information System (AMIS).



Transparency exposes bottlenecks and highlights risks

The COVID-19 outbreak hit the agriculture and food sector on all fronts: production, consumption, supply chains, and trade. Policy makers have required rapid access to accurate and timely information in order to triage problems and ensure that efforts and policies are directed to priority areas.

Understanding how market conditions have changed over time helps policy makers have a perspective in which to assess risks and identify bottlenecks. During crises, it is crucial to establish the extent to which the market situation is deviating from pre-existing trends and how the emerging situation compares to that in the lead-up to, or during, previous crises. This can only be achieved if market indicators and policy decisions have been consistently monitored and the information consistently reported. Obtaining a full picture of the situation also requires the ability to compare information across commodities and combine different types of information (e.g. market and policy information).

In the case of staple crops in the face of COVID-19, investments in transparency meant that information was readily available that quickly revealed that the problem in the market was not related to supply (given the abundance of stocks and favourable production outlooks) but was rather due to sudden demand surges driven by concerns about COVID-19, and to disruptions in trade and transport. Moreover, it showed that, in comparison to other commodities, staple crops were relatively less affected by transportation disruptions; this is because staples are often shipped in bulk, which requires less human interaction in ports, at border posts and on vessels. That said, these commodities were still affected by border procedures and quarantine measures that seriously affected trade, both domestically and internationally (OECD, 2020a).

Comparison of the global situation for different staple crops also revealed that, while global wheat, maize and soybean markets were stable, the rice market needed to be monitored more closely. In early March, international prices for rice started to increase following surges in demand. In April, the FAO's all rice price index reached its highest level since December 2011, although this was still well below 2007-08 levels (FAO, 2020). One of the main contributing factors to this price increase was the suspension of new export contracts in Viet Nam, the world's third largest rice exporter, as well as in Myanmar, combined with an export ban of rice by Cambodia. Additionally, the national lockdown in India, the world's largest rice exporter, and quarantine measures in Pakistan had resulted in logistical constraints, which also increased uncertainty and pushed prices upwards. However, most export restrictions were removed by May 2020. Transparency about domestic and global market conditions, combined with transparency in policy decisions, prevented the situation from escalating and leading to wider adoption of export restrictions by other countries.

During the COVID-19 outbreak, export restrictions have once again become a popular tool for governments attempting to protect domestic markets – even though these measures are rarely effective and multiple studies have shown the detrimental effects of these policies on domestic and international markets (Anderson et al., 2013). Experience with the impact of export restrictions imposed during the 2007/08 crisis shows that by diverting supplies from world markets, such measures increased food prices and volatility, thereby harming all countries, but in particular countries dependent on food imports. During the COVID-19 outbreak, export restrictions were not limited to the agriculture sector, but were also imposed on other goods such as medical supplies and face masks (OECD 2020b, 2020c).

A number of countries implemented export bans and quotas on staple crops in response to the COVID-19 outbreak (Figure 3).² However, information on the prevalence and duration of these policy measures needs

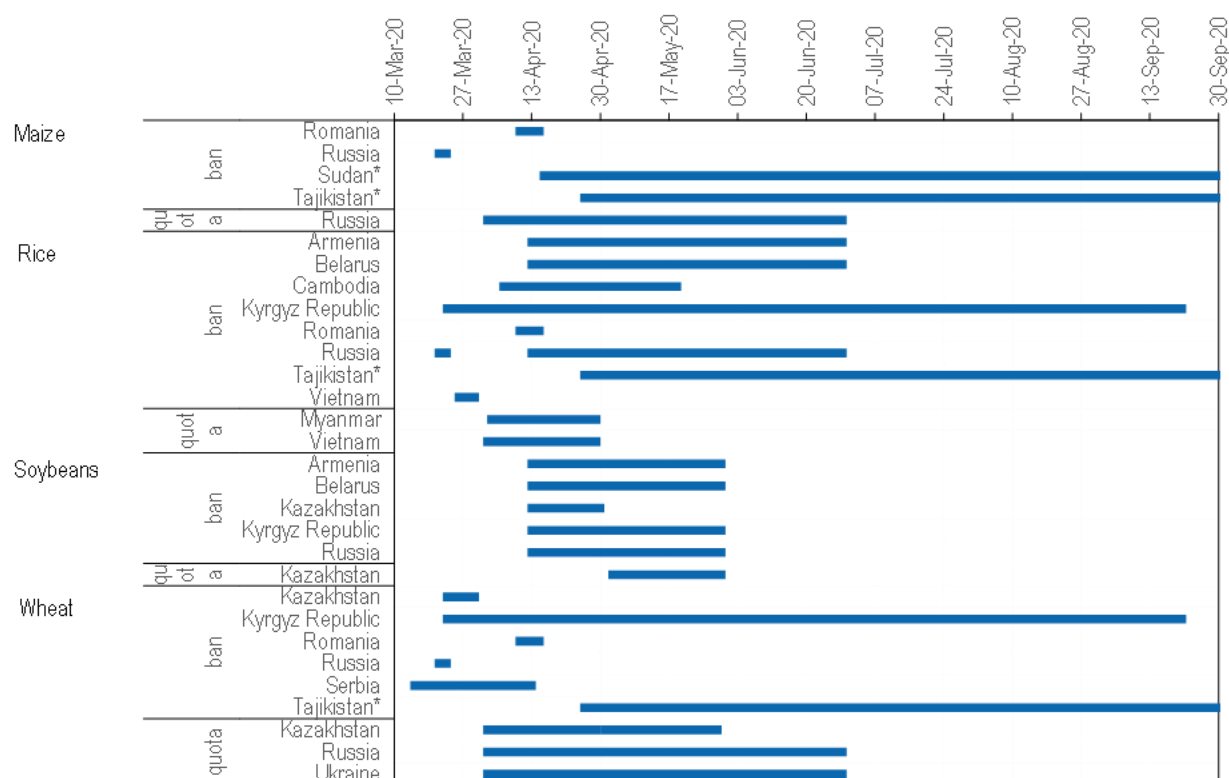
² A forthcoming OECD Policy Brief will provide an overview of the agro-food export restrictions introduced since the COVID-19 outbreak (OECD, 2020f).



to be combined with market information in order for their true impact on world markets to be understood. For example, Russia, the world's largest wheat exporter, introduced a grain export quota for the period April-June, 2020. However, by 26 April, the quota had been filled, which implicitly meant that all grain exports from Russia were *de facto* suspended until 1 July. Likewise, India is not represented in Figure 3 because it has not explicitly banned exports; instead, exports have been halted because its lockdown severely curtailed shipments. By contrast, Ukraine introduced a wheat export quota in April-June, 2020 to avoid a rise in domestic bread prices, but the actual amount of wheat exports from the Ukraine remained at levels similar to those of the previous year.

Obviously, a small exporting country introducing an export restriction will not, by itself, influence international markets. However, the risk is that when one country introduces a restriction, other countries follow suit and the accumulation of export restrictions does indeed affect international markets. It is therefore important to continue monitoring all export restrictions being imposed by any country as they can quickly destabilize markets. Even if such restrictions are only implemented for a short time, their impacts can be significant and affect markets for a long period (Deuss, 2017).

Figure 3. Export restrictions imposed on staple crops in response to the Covid-19 outbreak



Note: *Indicates measures with no known end date.

Source: OECD compilation.

Even though some countries introduced export restrictions on staple crops in response to the COVID-19 outbreak, transparency about global market conditions prevented a situation where even more countries introduced these measures. Furthermore, transparency about policy measures gave trading partners a better understanding of potential bottlenecks in the supply chain and, by combining this policy information with market information, they were able to adjust accordingly. Increased transparency has also exerted pressure on countries to limit their use of policies that can have detrimental impacts domestically, but also



on global markets. As a result, relatively fewer export restrictions were introduced than expected and most of these measures were short-lived.

How to improve transparency

Clarity and comparability are essential

For policy makers and market participants to be able to fully take advantage of information, it should be presented in a way that is clear and easy to understand. For certain types of information, tables or graphs can be sufficient, but for more complex information, additional explanations may be required. Policy information is, by definition, more qualitative and therefore usually falls under the latter category (see also above on export restrictions).

Information on the agricultural and food sector is often collected or published by different institutions, which can make it challenging to compare data across sources within a country, as well as across countries. The AMIS initiative introduced several ways to deal with this issue. First, the different AMIS member countries collaborate with the Secretariat to harmonise market information (e.g. explaining assumptions behind the forecasts, use of the marketing year). Second, AMIS publishes global figures on the market situation by different sources³ side-by-side to offer users a credible range for the estimates. Third, consistent communication about the data is key. Several meetings and webinars have been organised by the AMIS members where market and policy information could be shared, discussed and validated. This not only helped to ensure trust in the information, but also helped to ensure the consistent communication from AMIS members that is important for reducing market uncertainty.

Increasing the frequency of monitoring and reporting supports informed decision-making

Access to frequently updated information is crucial for people to make well-informed decisions. Making investment, planting, trade or policy decisions based on outdated information can have ripple effects that last for a long time. During extreme situations such as the COVID-19 outbreak, economies and market conditions change quickly, underscoring the need to have timely access to up-to-date information to inform decision-making. As soon as market conditions change or new policies are implemented, information needs to be made available so that stakeholders and governments can respond accordingly. Digital technologies have facilitated and simplified the rapid dissemination of information through online reports and video conferences (webinars) among multiple stakeholders. Yet information first must be collected, examined and verified before it can be published, and this can take time.

In agricultural markets, well-established structures are already in place for certain types of information gathering (e.g. price developments), which enables the frequency of reporting to be intensified as needed. However, not all information gathering can be accelerated. For instance, on-field monitoring requires people to inspect crops, which has been complicated during COVID-19 due to movement restrictions (Geoglam, 2020). In addition, certain types of information were not collected prior to the COVID-19 outbreak simply because this type of event had not occurred before (e.g. impacts of lockdown-induced restrictions on movements in the sector). Governments and international organisations needed time to establish the trusted, standardised systems to collect and publish this information.

³ In particular, supply and demand information from the following three sources is published: FAO-AMIS, International Grains Council (IGC), and United States Department of Agriculture (USDA).



At the international level, AMIS publishes monthly market and policy information on staple crops in its Market Monitor, but some of the AMIS organisations (e.g. the International Grains Council (IGC)) also publish daily updates for their members. As noted above, during COVID-19 several countries adopted this practice and also increased their reporting on supply and demand balances to stop panic buying. Multiple international organisations also started reporting on new policy developments as they were announced, thereby providing a global picture of countries' policies in real time.⁴ In some cases, policies in global markets were changing multiple times per day: Table 2 illustrates how the export policy decisions of two large exporting countries changed multiple times over a matter of weeks. In periods of emergency such as the COVID-19 pandemic, where the situation can change rapidly, publishing this information as soon as it becomes available is crucial for domestic and international markets to adapt

Table 2. Timeline of export restriction decisions on rice in Viet Nam and on grains in Russia

Country	Policy developments related to export restrictions
Viet Nam	<p>25 March 2020: Introduces export ban on rice until 28 March 2020.</p> <p>30 March 2020: Traders report that rice export ban has not yet been lifted.</p> <p>1 April 2020: Replaces rice export ban with export quota set at 400 000 tonnes for April and for May.</p> <p>15 April 2020: Announces that 400 000 tonnes will be exported in April and that the export quota policy for May will be revisited.</p> <p>22 April 2020: Increases rice export quota for April from 400 000 tonnes to 500 000 tonnes to accommodate cargoes transported to ports prior to export ban introduced 25 March 2020.</p> <p>28 April 2020: Announces that it will fully resume rice exports from 1 May 2020.</p>
Russia	<p>20 March 2020: Introduces ten-day export prohibition on grains.</p> <p>24 March 2020: Cancels export prohibition on grains.</p> <p>31 March 2020: Eurasian Economic Union (EAEU) announces prohibition on the export of a number of basic foodstuffs from the customs territory of the EAEU (including onions, garlic, turnips, rye, rice, buckwheat, millet, cereals, wholemeal and granules from cereal grains, peeled buckwheat, prepared foods from buckwheat, crushed and uncrushed soybeans and sunflower seeds) to enter into force 12 April 2020 and last until 30 June 2020.</p> <p>1 April 2020: Introduces a grain export quota of 7 million tonnes for the period April-June. The quota does not apply to countries of the Eurasian Economic Union.</p> <p>12 April 2020: EAEU export prohibition enters into force.</p> <p>26 April 2020: Announces that grain export quota has been reached and that grain exports will be suspended until 1 July 2020.</p> <p>1 June 2020: EAEU amends its export prohibition to allow for exports of soybeans (crushed or uncrushed) from the customs territory of the EAEU starting from 1 June 2020 (amendment was published 2 June 2020 and entered into force on 13 June 2020).</p>

Source: Agricultural Market Information System (AMIS).

With risks to food security accumulating, continued investment in transparency and policy co-ordination is essential

The agricultural sectors most affected by the COVID-19 outbreak are the livestock, perishable and high value products (OECD 2020d, 2020e). Even though the staple crops covered by the AMIS initiative have experienced – so far – fewer problems due to the pandemic, the AMIS initiative has both helped ensure that this is the case, and can provide valuable lessons that can be replicated in the wider agricultural and food sector.

⁴ For example, regular updates on policy developments could be found on the websites of IFPRI (<https://public.tableau.com/profile/laborde6680#!/vizhome/ExportRestrictionsTracker/FoodExportRestrictionsTracker?publish=yes>), ITC (<https://macmap.org/en/COVID19>), and WTO (https://www.wto.org/english/tratop_e/COVID19_e/COVID19_e.htm).



Early in the COVID-19 outbreak, there was a growing concern that the health crisis was going to develop into a food crisis similar to the one of 2007-08. Thanks to the transparency in staple crop markets through the AMIS initiative, it was possible to have a reliable and regularly updated overview of the global situation of staple crops. It became quickly clear that global supplies of the major commodities were in robust shape, with strong production forecasts on top of already ample stocks. However, it was also revealed that changes in demand, and supply chain disruptions from trade and transportation issues, along with the implementation of export restrictions by some key exporters were the main causes for concern. Calming the markets for food staples by providing information about the demand and supply balances, along with contextual policy information helped policy makers to identify the main bottlenecks and risks and prioritise policy responses.

While global supplies are currently sufficient and production prospects are good, there is a growing concern that a food crisis may still develop in the near future. Several key risks need to be monitored and policy makers need to be ready to respond:

- While some countries and regions are now emerging from lockdowns, the virus is still spreading in other countries and regions and is surging once again in some OECD countries.
- Economic growth for the entire world is projected to be greatly affected by the pandemic⁵, which will have a severe negative economic (income) impacts on poor and vulnerable populations, thereby reducing their access to food.
- There are also several uncertainties regarding the market situation for staple crops. These include drought in several wheat producing regions (Europe, Ukraine), and the locust outbreak in South-West Asia and East Africa.
- Policy risks also remain, including the possibility that countries might reinstate export restrictions or introduce other distorting policies (OECD 2020d, 2020e).

Against this background, but also in the face of future known risks such as climate change as well as unknown risks, the role of AMIS in continuing to provide transparency in the market and policy situation of staple crops and to keep co-ordinating policy responses remains critical. The transparency afforded by AMIS is crucial to keep global markets working and to support the resilience of the food system in providing people around the world with affordable, nutritious food.

References

Anderson Kym, Maros Ivanic, and Will Martin (2013), *Food price spikes, price insulation, and poverty*, Policy Research Working Paper, World Bank Development Research Group, Agriculture and Rural Development Group, July.

Deuss, Annelies (2017), "Impact of agricultural export restrictions on prices in importing countries", *OECD Food, Agriculture and Fisheries Papers*, No. 105, <http://dx.doi.org/10.1787/1eeeb292-en>.

FAO (2020), FAO rice price update May 2020, accessible at <http://www.fao.org/economic/est/publications/rice-publications/the-fao-rice-price-update/en/>.

Geoglam (2020), *Crop monitor for early warning*, No.50, 4 June, accessible at https://cropmonitor.org/documents/EWCM/reports/EarlyWarning_CropMonitor_202006.pdf.

⁵ The OECD Interim Economic Outlook projects global GDP to fall by 4.5% this year, before growing by 5% in 2021. <http://www.oecd.org/economic-outlook/september-2020/>



OECD (2020a), *COVID-19 and the food and agriculture sector: Issues and policy responses*, OECD Policy Responses to Coronavirus (COVID-19), accessible at <http://www.oecd.org/coronavirus/policy-responses/COVID-19-and-the-food-and-agriculture-sector-issues-and-policy-responses-a23f764b/>.

OECD (2020b), *Understanding the impacts of export restrictions in the context of COVID-19*, OECD Policy Responses to Coronavirus (COVID-19), forthcoming at <https://www.oecd.org/coronavirus/en/policy-responses>.

OECD (2020c), *The face mask global value chain in the COVID-19 outbreak: Evidence and policy lessons*, OECD Policy Responses to Coronavirus (COVID-19), accessible at <http://www.oecd.org/coronavirus/policy-responses/the-face-mask-global-value-chain-in-the-COVID-19-outbreak-evidence-and-policy-lessons-a4df866d/>.

OECD (2020d), *Food supply chains and COVID-19: Impacts and policy lessons*, OECD Policy Responses to Coronavirus (COVID-19), accessible at <http://www.oecd.org/coronavirus/policy-responses/food-supply-chains-and-covid-19-impacts-and-policy-lessons-71b57aea/>.

OECD (2020e), *COVID-19 and global food systems*, OECD Policy Responses to Coronavirus (COVID-19), accessible at <http://www.oecd.org/coronavirus/policy-responses/covid-19-and-global-food-systems-aeb1434b/>.

OECD (2020f), *Agro-food export restrictions and COVID-19*, OECD Policy Responses to Coronavirus (COVID-19), forthcoming at <https://www.oecd.org/coronavirus/en/policy-responses>.

USDA (2020), *Grain: World markets and trade*, June 2020, accessible at <https://apps.fas.usda.gov/psdonline/circulars/grain.pdf>.

This paper is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>

THE ROLE OF TRANSPARENCY IN AVOIDING A COVID-19 INDUCED FOOD CRISIS © OECD 2020

