Data for decision-making
Using alternative data sources to monitor the impact of COVID-19 on agricultural incentives

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The issue

COVID-19 is a global health crisis with profound effects. Timely and reliable information on its evolution and consequences can help anticipate and mitigate potential disruptions caused by the pandemic. This can help to avert major food-security and livelihood crises, avoiding panic reactions that could aggravate the situation and harm the food and nutrition security of the most vulnerable.

National data-collection processes are being disrupted by COVID-19- induced social-distancing measures. This is not only affecting the availability of food and agricultural statistics, but also the capacity of national statistical systems and other data producers to respond to new data demands arising from the pandemic.

Governments in North Africa and Near East are now rapidly adopting new policy measures in response to COVID-19, with potentially far-reaching effects such as export restrictions and other macroeconomic adjustments as well as stimulus packages. Therefore, monitoring how these policies are affecting agricultural price incentives and disincentives across different countries and value chains is extremely important to understand the extent to which the pandemic is disrupting agricultural markets. More importantly, this monitoring exercise is key to understand how such incentives and disincentives need to be realigned to be more supportive of an economic recovery in the post-COVID-19 era: it is the essence for policy recommendations.

The action

To address the COVID-19 data challenge, alternative data sources are required. The Food and Agriculture Organization of the United Nations' (FAO) Data Lab for Statistical Innovations, which supports FAO's Hand-in-Hand Initiative and Strategy for the Modernization of FAO Statistics, is scaling up the use of non-official data and data-science methods to cover data-domain gaps and geographical areas for which no or partial official statistics are available.

The response aims to build on the work of the FAO Data Lab to collect evidence of the effects of COVID-19 on food security, the agriculture sector and food systems and monitor agricultural price incentives and disincentives across different countries and value chains. It foresees the following priority areas of work:

- Scaling up the development and use of text-mining tools and web scraping technologies to respond to data gaps and support policies.
- Building on the Global Information and Early Warning System on Food and Agriculture (GIEWS) and the Food Price Monitoring and Analysis (FPMA) tool

Budget
USD 520 000

Time frame
2021–2023

SDGs
2 ZERO HUNGER

Related FAO policy notes on COVID-19

▶ COVID-19 and the risk to food supply chains: How to respond?

▶ COVID-19 global economic recession: Avoiding hunger must be at the centre of the economic stimulus

▶ Mitigating risks to food systems during COVID-19: Reducing food loss and waste

▶ Simulating rising undernourishment during the COVID-19 pandemic economic downturn

price database as the key sources of data for the analytical work proposed here.

- Accelerating the use of Earth Observation data to produce crop mappings, crop-area and crop-yield estimates when no national data collections can produce this information.
- Country analysis of measuring the price distortions that government policies may create in agricultural value chains.

Expected results

This programme will provide decision makers with sound information to make food systems more resilient and mitigate potential risks to people's food security and livelihoods, including:

1 Real-time analytics and information on the impact of the COVID-19 pandemic on food chains, prices and possible interventions, created from text mining tools and web-scraping technologies.

2 New analysis and dashboards on food-chain disruptions, the socioeconomic impact of COVID-19, food-security issues, policy interventions and interrelations between them.

3 New disaggregated and geo-referenced datasets by country, administrative region, commodities and statistical variables (in particular, agricultural production and productivity, prices and investments) built from web-scraping and existing national data.

4 Crop-layer maps and crop-area and yield estimates on countries' main crops, produced using earth observation data.

5 Key COVID-19 policy responses adopted by governments in the countries covered, which have been intended to affect the food and agricultural sector and could help explain changes in levels of incentives.

Programme links

This programme will support data collection to inform FAO's COVID-19 response programmes, including collective actions for sustainable food systems, Zero Hunger, trade and agribusiness, and economic inclusion. Its results will also ultimately feed the analytics foreseen in the Hand-in-Hand Initiative, measuring the Sustainable Development Goals and the common country analyses performed by United Nations Country Teams.

Country focus

Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates

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