Food and Agriculture Organization of the United Nations

FAO COVID-19 Response and Recovery Programme

Data for decision-making
FAO's Data Lab for Statistical Innovations – Using alternative data sources to monitor the impact of COVID-19

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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.

The action

To address the COVID-19 data challenge, alternative data sources are required. Food and Agriculture Organization of the United Nations' 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. It foresees two priority areas of work:

- Scaling up the development and use of text-mining tools and webscraping technologies to respond data gaps and support policies.
- 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.

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.

Budget

USD 1.3 million

Timeframe

2021–2023

SDGs

Related FAO COVID-19 Policy notes

- The coronavirus and the potential blackout of national statistics: Reorganizing national statistical systems in the context of COVID-19
- National agricultural census operations and COVID-19

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.

Partnerships

Numbeo (consumer prices), Spriklr (text analytics), United Nations Economic Commission for Europe (use of big data for international official statistics), European Space Agency, SEN4 STAT, Université Catholique de Louvain. Additional potential partners: Copernicus, ONESOIL, United Nations Global Platform, GEOGLAM, Joint Research Centre (JRC), ESRI.

Programme links

This programme will support data collection to inform FAO's COVID-19 response programmes, including Collective action 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 the United Nations Country Team.

Regional and country focus

Real-time analytics and information on the impact of the COVID-19 outbreak will be produced for all countries and disseminated on FAO's website dedicated to the pandemic. Selected disaggregated information, including crop maps and croparea and yield estimates, will focus on 60 to 80 countries, based on data availability at national level and vulnerability to the pandemic. Priority will be given to countries targeted by the Hand-in-Hand Initiative, as appropriate.

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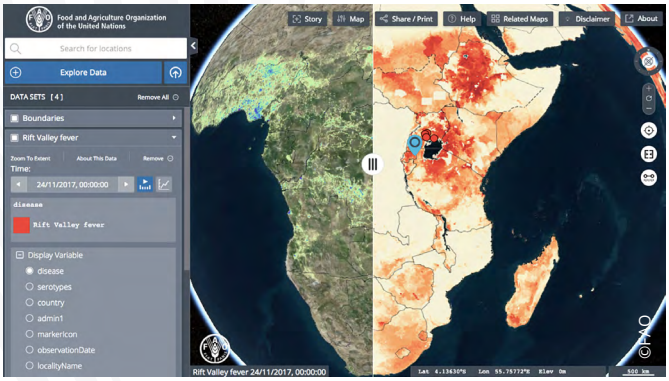

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