

Research, Analytics and Monitoring to inform the COVID-19 response

BACKGROUND

In the wake of the coronavirus (COVID-19) global pandemic, the World Food Programme's (WFP's) Research, Assessment and Monitoring (RAM) Division has launched a series of papers, studies and guidance materials to inform decision-makers and programme managers to make policy decisions and guide programmatic adjustments in support of population groups most affected in developing countries and countries in transition.

DASHBOARDS AND ANALYTICAL TOOLS

Hunger Map Live and COVID-19 data

[Hunger Map LIVE](#) is WFP's newly launched global hunger monitoring systems that provides near real-time estimates on the food security situation in over 90 countries. It also displays data on weather, population size, conflict, hazards, nutrition and macro-economic indicators and allows users to zoom into countries on interest. Hunger Map LIVE now also incorporates COVID-19 trends (confirmed cases and deaths) by World Bank income groups: low-income, lower-middle income, upper-middle income, and high-income countries.

An alerting system has been integrated to signal when a marked deterioration in food intake or when doubling of COVID-19 cases occur in any given country. By capturing daily improvements and deteriorations in countries across a variety of indicators, the Hunger Map LIVE provides the necessary information for early action and contributes to informing WFP's response to COVID-19.

DataViz's platform and Hunger Analytics Hub

WFP's [DataViz platform](#) is a one-stop-tool that makes data - through visualization - easily accessible to decision-makers and analyst alike. The [Hunger Analytics Hub](#) allows users to overlay a variety of comprehensive real-time data streams, such as rainfall, hazards, food security and markets alongside COVID-19 data within the same window. Through this platform, it is possible to access an overview of COVID-19 caseloads at a global scale and drill down to see national trends. Depending on the users' needs, different data layers and filters can be chosen. With COVID-19 data now integrated, the DataViz platform can accelerate food security analyses and inform the design of remote and on-the ground assessments.

Hunger and COVID-19 Snapshots

The **Hunger and Covid-19 Snapshots** is a new resource that provides country-level overviews of the latest food security trends, COVID-19 caseloads, estimated number of days for COVID-19 caseloads to double, economic risk factors, demographic breakdowns of vulnerable age groups, virus transmissibility based on air temperature and relative humidity, as well as other relevant indicators and how these indicators are changing from one week to the next. Data is collected on a rolling basis through WFP's near real-time monitoring systems via live telephone interviews with data being processed and updated daily. Hunger and Covid-19 Snapshots will be published and made available to download through the Hunger Map LIVE on a weekly basis. This new resource aims to help country-level decision-makers assess the impact of COVID-19 on food security, access to services and supply chains on a close to real-time basis.

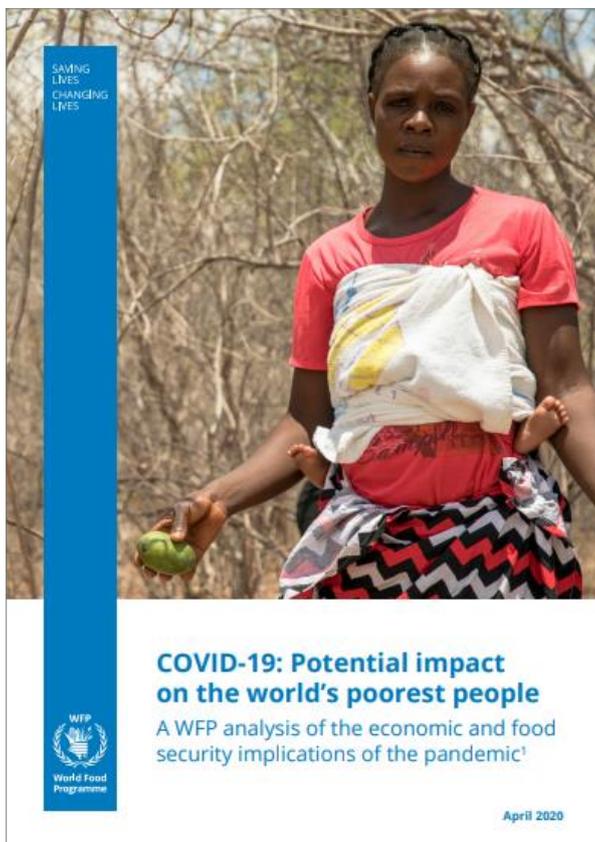
Figure 1: Snapshot of HungerMap^{Live} integrating COVID-19 statistics



Regular updates on the economic and food security implications of COVID-19

The analysis provides a macro-overview on the economic impact of COVID-19. A list of countries at risk is provided and progressively updated.

- [Economic and food security implications of the COVID-19 outbreak](#) (12 March 2020)
- [Economic and food security implications of the COVID-19 outbreak - An update based on the evolving economic outlook](#) (25 March 2020)
- [Economic and food security implications of the COVID-19 outbreak - An update with insights from different regions](#) (14 April 2020)
- [COVID-19: Potential impact on the world's poorest people. A WFP analysis of the economic and food security implications of the pandemic](#) (April 2020)



COVID-19 and climate: Possible geographical and temporal patterns

A short paper that reviews current research on the possible influence of weather factors on the transmissibility of SARS-Cov-2. A model for the dependency of SARS-Cov-2 reproductive number with temperature and humidity was used to map broad patterns of potential transmission and its temporal changes along the calendar year. This paper is intended to be used to highlight areas where enhanced transmission might be at play in the near future and if these areas included countries with high levels of poverty, food insecurity and high exposure to the economic impacts of Covid-19.

The first update of the paper can be accessed [here](#).

Implications of COVID-19 on displaced and mobile populations

COVID-19 has disrupted the lives and livelihoods of millions of people around the world. The outbreak has significant implications for mobile and displaced populations, including migrants, refugees and internally displaced persons (IDPs), many of them living in poor densely populated areas or camps and relying on assistance or unstable and temporary income opportunities to survive. COVID-19 also puts at risk poor families in countries of origin who often depend on remittances to meet their food and other essential needs.

Based on macro-level and country case studies using remote monitoring data, this study will explore the impacts of COVID-19 on different mobile and displaced populations groups and its implications on food security, health and other livelihood outcomes through the various transmission channels to advocate for the needs of these highly vulnerable groups and inform humanitarian response.

Implication of COVID-19 for urban populations meeting essential needs

Poor urban populations will be hit hard by both, direct and indirect effects of COVID-19. Their capacity to take on prevention measures is low: Living in highly populated areas and sharing living spaces makes it impossible keep the required distance. Limited access to water and hygiene items such as soap can prevent regular handwashing. A large share of the urban poor is employed in the informal sector. Lockdown measures and, in the longer term, the expected economic slowdowns will hit them hard and threaten their livelihoods.

The paper will analyze the impacts of COVID-19 and its economic effects on poor urban populations, identify the most vulnerable groups, discuss possible responses and targeting and prioritization options for decision-makers and practitioners based on global statistics and case studies covering different regions of the world.

Modelling the economic impacts of COVID-19 in countries at high risk

The Integrated Demand Analysis Platform (IDAP) is an analytical platform developed by VAM in partnership with University of California Davis and Kagin's Consulting based on the local Economy-wide Estimation (LEWIE) and Shock Impact Simulation (SISMOD) models. Its objective is to provide decision makers with a flexible tool that facilitates scenario building and supports advocacy, decision making and monitoring. This is achieved by simulating the impact of negative shocks on households and the local economy, combined with the measurement of direct and indirect benefits of assistance provided to households, and how assistance is or could potentially off-set the impacts of the respective shocks. The focus will move and take on the challenge of modelling and estimating the unprecedented impacts that COVID-19 will have on countries and populations, and how assistance should be directed in light of the global crisis.

REGIONAL ANALYSES

Middle-East, Central Asia and North Africa

Potential repercussions on food security and the economy could be severe for the region, especially for countries that were already fragile before the outbreak or weakened by years of conflict. The region at large is heavily dependent on oil and gas and food imports and therefore sensitive to price fluctuations and trade restrictions. The COVID-19 pandemic coupled with increased volatility in oil markets has already decreased trading in stock markets, investment, tourism and remittances.

West Africa and Central Africa

[COVID 19: Economic and Market Impact Analysis](#)

The 19 countries of West and Central Africa all fall into the categories of low or lower-middle income economies, within which they can be further broadly grouped into 3 clusters based on Gross Domestic Production. Most of the countries in the lowest group have been affected by conflict of one form or another, although not a causal analysis as several countries in the top two ranges have also faced conflict or political turmoil in the last decade. Ebola crisis affected three of them: Guinea, Liberia and Sierra Leone.

Eastern Africa

[Impact of COVID-19 Outbreak on Livelihoods, Food Security and Nutrition in East Africa](#)

Current trends indicate that virus is likely to spread further and likely to have significant impact on the economy, and to livelihoods, food security and nutrition of the populations in Eastern Africa. WFP estimates that a total of 20 million people are food insecure in the region and this is likely to increase to between 34 to 43 million during the next three months due to COVID-19 and its consequences.

Southern Africa

The impact of the outbreak on the Southern Africa region could be catastrophic unless efforts are undertaken to manage the spread of the virus. With experience from the regional HIV and AIDS response, it is known that the HIV response in this region has been sustained by external resources from the Global Fund and PEPFAR. Most countries in the region struggle to allocate sufficient budgetary allocations for health and nutrition and will have limited capacity to address COVID impacts.

[COVID-19 Impacts on Southern Africa](#)

Based on a preliminary analysis of climatic shocks and underlying vulnerabilities in the 12 countries with a WFP operational presence, the Regional Bureau projects that 29 million rural people may require food assistance over the coming year. Approximately 13 million people are at risk of food insecurity due to COVID-19 related impacts on urban and peri-urban populations. Our forecasts estimate that 42 million people in these focus countries will be food insecure over the coming 12 month timeframe.

[COVID-19: Economic and Food Security Implications in East Africa](#)

Among the different regions of the world, East Africa region has the largest concentration of people facing hunger and malnutrition. As per the Global Report on Food Crises in 2019, countries in this region have 22% of the total global population facing acute hunger, while it has only 3% of the global population. There are 15.4 million people in the region facing acute hunger (IPC phase 3 or worse). Currently, there are 15.4 million facing acute food insecurity in Ethiopia, South Sudan, Somalia and Kenya.

Latin America and the Caribbean

Latin America is being financially impacted by the coronavirus for multiple reasons, one largely due to the dependence the region has on the Chinese markets, in terms of loans, foreign direct investment and most importantly trade. The region is comprised of countries which are reliant on key exports commodities which will face disrupted supply chains in the coming period. To further understand the impacts on markets, the team is currently working on a **COVID-19: Macro Market Context Analysis**.

[Regional Remote Assessment of COVID-19](#)

At least 14 million people could go hungry in Latin America as the coronavirus pandemic rages on, shuttering people in their homes, drying up work and crippling the economy. Whereas 3.4 million experienced severe food insecurity in 2019, that number could more than quadruple this year in one of the world's most vulnerable regions.

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“Timely information has proved a vital resource — data informs how we respond, prepare and adapt. Ensuring relevant information is available and easily accessible to our colleagues and the wider humanitarian community is paramount”.

Arif Husain, Chief Economist, WFP

REMOTE FOOD SECURITY MONITORING SYSTEMS

As many countries are putting restrictions and quarantine measures in place to curb the spread of the virus, traditional assessment and monitoring tools and methods, such as face-to-face interviews, are no longer appropriate. Leveraging its strong experience in remote data collection using phone surveys and innovative digital tools, VAM has expanded the coverage of remote monitoring and assessment tools. The goal is to ensure that timely and reliable data is available and accessible to the whole humanitarian community and general public, and that decision makers are provided with relevant trend information on the evolution of the food security situation during the COVID-19 crisis and beyond.

mVAM phone surveys

The Hunger Monitoring Unit is scaling up its remote, continuous food security monitoring systems, with a goal to establish these systems across up to 40 countries to support WFP’s global response to COVID-19 and the United Nations Global Humanitarian Response Plan for COVID-19. Already established in 17 countries, this expansion will focus on countries that are particularly vulnerable to a COVID-19 outbreak, due to weak health systems, low COVID-19 preparedness and a low capacity to cope. Simultaneously, these remote, continuous food security monitoring systems have been adapted and are now collecting additional information on a range of indicators relevant to COVID-19 which are flowing into the [Hunger Map LIVE](#).

In collaboration with FAO and other partners, WFP’s continuous monitoring systems have been expanded to monitor COVID-19 related impacts on households, with a special focus on health care, access to markets, and livelihoods. This will help WFP to monitor the situation prior to large scale outbreaks of COVID-19, capture problems in real time in the event of an outbreak and provide the necessary information for early action and mitigation.

Additionally, trader-based surveys are being implemented to understand and track COVID-19 related impacts on market functionality and supply chains through the reduced Market Functionality Index (reduced MFI).

Leveraging on remote food security monitoring systems, WFP is actively seeking to exploit synergies with programme monitoring in the context of COVID-19 by adding and embedding outcome monitoring with beneficiaries in countries where mVAM systems are in place or being set-up.

Web surveys

In 2020, internet coverage reached close to 60 percent of the global population. This presents a 7 percent increase compared to 2019. While the digital divide continues to exist, the gap has been narrowing in recent years. For example, Africa now hosts more than 450 million internet users, which represents a 34 percent of its population and a 10 percent increase compared to 2019. In the Middle East, 70 percent of the total population are internet users with an annual growth rate of 14 percent.

To date, randomized web surveys have been successfully tested in over ten countries, covering general populations, migrants, refugees and internally displaced people. The tool has been proven an excellent tool to access otherwise often invisible groups such as mobile and displaced populations, youth and adolescent including young women in context where internet can be considered good enough. The tool is now being expanded to assess and monitor COVID-19 related impacts, focusing on disruptions of markets, livelihoods, how people meet their food and other essential needs, awareness and protection measures, as well as safety concerns to complement phone surveys data where available and inform thematic research on specific vulnerable groups.



TARGETING AND PRIORITIZATION

Targeting aims to identify geographic areas and populations in need to enable provision of timely and relevant assistance. The COVID-19 disease outbreak comes with unpredictable primary and secondary impacts on vulnerable and food insecure populations across the world. Sustaining existing live-saving assistance and the potential scale-up in a context of limited resources, will require careful prioritization decisions to ensure that the most-needy people will be reached with the right assistance.

The guidance on [Targeting and prioritization of impoverished and food-insecure populations affected by COVID-19](#) aims to inform decision-makers and practitioners in making immediate targeting and prioritization adjustments and guide them how targeting criteria may have to be expanded to protect populations with high risk factors, as well as those impacted by the socio-economic shocks associated with COVID-19 – covering both urban and rural settings. It also sheds light on which information has to be collected to inform targeting decisions and how targeting decision and outcomes can be monitored.



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