4 April 2020

Re di g he i ac f he COVID-19 b eak f d a e chai h gh efficie gi ic

To contain the COVID-19 pandemic (caused by the virus SARS-CoV-2), governments around the world have implemented measures, including a severe reduction in the transportation of goods (ground, ocean freight and air freight), services that rely on transport, as well as migration of labour domestically and internationally. Workers are less available reflecting both disruptions in transportation systems and restrictions to stop the transmission of the disease, within and across borders. These factors induce overall disruptions in the logistics of the food supply chains, impeding the shipment of food and agricultural inputs, threatening food security and nutrition, particularly for the most vulnerable population segments.

Logistics in food value chains includes all activities that enable the flow of agriculture inputs, outputs, and agriculture-related services, such as transportation, warehousing, procurement, packaging and inventory management. The efficacy of logistics is critical for the agri-food sector, in particular in times of crisis. Disruptions can cause adverse impacts on the quality of food, freshness, its safety, and can impede access to markets and affordability.

The Food and Agriculture Organization of the United Nations (FAO) urges countries to maintain functioning food value chains to avoid food shortages, following practices that are being proven to work. This note summarizes some practices that could be useful for governments and the private sector to maintain critical logistical elements in food value chain.

Food and agriculture are being affected in all countries as a result of measures to contain the COVID-19 outbreak. The impacts differ across farming systems and make some countries more exposed than others. Most agricultural activities are season-specific and weather-dependent; they follow a fine-tuned pattern of timing, pacing and sequencing of activities. A delay in one activity can have impacts throughout the production process, affecting yields and output. Capital-intensive farming could be most affected, particularly where production relies on a great variety and large amounts of intermediate inputs, such as seeds, feeds, fertilizers, pesticides, lubes and diesel. But also, subsistence farmers can be affected. While they rely more on their own farm-based inputs, many have to purchase their inputs on local or regional markets, including their seeds, feeds or diesel. Their input supply chains are typically more fragile and more susceptible to disruptions. Importantly, they use more manual labour and, where the disease takes a direct toll on their health or their movement, this can impede not only their ability to produce for others, but also undermines their own food security. Labour-intensive agriculture, such as fruit and vegetable production, relies heavily on temporary or seasonal farm

workers particularly during planting, weeding, harvesting, processing or transporting to markets. A lack or a delay of supply of these products affects people in the informal sector of urban areas who rely on produce from rural areas for their livelihood. The closure of restaurants, cafes, and street-food vendors, for instance, can also lead to significant reductions in otherwise reliable market outlets for many farmers, whose incomes will decline when products cannot be brought to markets.

Against this background, maintaining a functioning input system in agriculture is critical for a smooth functioning of the food supply chain – from "farm to fork". Without proper coordination, however, these interventions may not have the expected effects, or may never exist in the first place. Before, but not waiting too long for specific strategies and interventions to be put in place, it is suggested that countries creates a crisis committee to deal with the impact of COVID-19 outbreak on food supply, involving, among others, ministries of agriculture, livestock and food supply, transport, economy, trade, and so forth. A crisis committee like this becomes a critical mechanism to monitor and propose strategies to minimize the impacts of the coronavirus on food security and nutrition through the potential agricultural production and food supply disruptions. To ensure that strategies are adequately and fully implemented by the market operators, it is critical that this crisis committee engages the private sector, through a broader multi-stakeholder advisory committee that includes representatives of all actors in the food supply chain.

Once formed, a crisis committee can think of a number of possible measures and interventions that may work in the particular context of the country and put in place the coordination for the coherence and effectiveness. Based on practices that have been proven to work (in the face of past crises and disruptions to the global food sector), or practices that are just starting to show good results to face the COVID-19 outbreak, FAO recommends the following measures to minimize the impact of the COVID-19 pandemic on food value chains logistics. The multi-stakeholder advisory committee could play an essential role in ensuring that these measures fully match the need of food value chain actors.

- Giving precedence to the health of consumers and workers in food value chains, and the safety and integrity of food need to be guaranteed. Safety measures, such as testing, physical distancing and other hygienic practices, should be adhered to as advised by the World Health Organization (WHO), as shown at: www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public
  - National health authorities in collaboration with the Ministry of Agriculture and Trade and local authorities may request that cooperatives, agri-enterprises and agri-associations, or local authorities in their absence, develop quick reference health and safety flyers for actors along the food supply chain, with practices that need to be adhered to mitigate the risk of disease transmission. In addition, testing for COVID-19 should be increased as much as possible for all workers in this sector.
  - Governments and businesses should encourage farmers, processors, traders and other important food supply chain actors to put in place a plan (e.g. handover notes) in case of

- Gathering essential information to align logistical related policy reforms and government interventions:
  - **Carry out rapid national and sub-national assessments** of food stocks and yield forecasts to identify any gaps or surpluses that can arise due to import bans or shortages, particularly in key international trade partners. Consider reallocation of food stocks between different areas of the country and decreasing non-food uses (e.g. for biofuel) to ensure availability and to avoid sub-regional price spikes.
  - **Plan with forecasting and simulations**. Understand the demand and make simulations on how demand may evolve and if and how production, processing and distribution can be adapted.
  - **Verify and monitor which transportation routes are blocked** (seeking potential alternatives) and how many workers will be unable to work because of lockdown.
  - The aforementioned **plans of farmers, processors, traders and other important food supply chain actors** in the face of health and movement disruptions are also critical to inform policy making.
- Prioritizing logistics to maintain and increase agricultural production and market access:
  - **Allow movement of seasonal workers and transport operators (e.g. truck drivers) across domestic and international borders**. Adequate health screening, testing, and safety protection measures should be taken. Special flights/trains/coaches can be organized to help seasonal workers to get to their workplace.
  - **Train local labour force in agricultural activities.** Many agricultural activities, such as planting, harvesting and storage are tightly integrated into seasonal timetables. When and where seasonal workers are not available, options to mobilize unemployed or underemployed workers or reallocate workers from other areas with temporary labour surpluses (restaurants) should be considered. This would afford unemployed individuals with additional income, and open options to retrain the workforce, in addition to contributing to keep the food value chain alive. It could also be a new variation of the public work programs.
  - **Retain agri-dealers and livestock supplies shops** as essential services with call and collect or delivery services only.
  - **Identify collection centres closer to producers,** for example develop storage facilities like warehouse receipt system platforms where farmers can deliver their produce without the need to go to markets.
- To support transport:
  - **Provide transportation support** that allows producers and distributors to deliver available crop harvest, livestock and fishery products to central distributing locations in times of fuel shortages.
  - Adopt measures like “green channels/green lanes/green corridors” for critical agricultural products and production materials such as fruits and vegetables to minimize hurdles in transport. Checks and health screening should be rapid while effective.
  - **Maximize the use of transport** (i.e. space in trucks, boats, etc.). Specific coordination is required from the government and actors to avoid paths with empty charges. A truck that moves food from an exporter to a port, for instance, should not come back empty to the origin point and could rather bring food for an importer through proper logistical coordination.
- To support food processors and retailers in particular Small and medium-sized enterprises (SMEs):
  - **Convene representatives of value chain actors** (farmer coops, traders, transporters, processors/small and medium enterprise associations, etc.) **to coordinate the**

aggregation and transportation of food adhering to good postharvest handling and transport practices to maintain quality, freshness and food safety.

- **Take an inventory of public and private storage facilities**, including available cooling infrastructure, and map out and **assess cold chains** that can be used for emergency storage. Ensure that the stockpiles of food meet the nutritional needs of the population when combined into food baskets for distribution.
- **Provide sufficient physical spaces** to farmers' organizations that allow workers to maintain physical distancing rules and to manage the home delivery logistics, for example spaces for product aggregation and preparation of boxes.
- In the absence of demand from closures of food services and restaurants, **leverage the power of public procurement** on essential agricultural supplies and ensure that market channels and logistics are still available for farmers. Make rapid reforms to procurement procedures and rules, including rapid payment and cash-on-delivery, in particular for small farmers and processors, while maintaining high food quality and safety standards.

- To ensure consumer access to foods:
  - **If possible, allow local markets to remain open**, while putting in place strict physical distancing measures within and outside markets, e.g. limiting the numbers of people per square meter. If feasible, **relocate markets to larger premises,** while ensuring the appropriate infrastructure is in place to maintain quality and food safety. Minimum number of staff to run markets and limited numbers of customers and time spent at markets should be monitored. **Regular sanitation** of open-air markets should be ensured.
  - **Pay special attention to low-income consumers with limited access to food outlets** (e.g. those who need to travel significantly more to access fresh markets or urban supermarkets). Adequate resources on delivery should be allocated to these vulnerable people.
  - Urgently prioritize policy reforms and investment in online platforms that facilitate the formalization of **online food delivery services from local providers** that include online customer protection and food safety and limiting seller-to-buyer transmission.
  - **Strengthen home delivery to ensure consumers' access to fresh and local products**, especially to elderly people who are strongly advised not to leave their home.
  - **Organize information campaigns for** consumers based on the brief on COVID-19 and healthy diets, available at: www.fao.org/documents/card/en/c/ca8380en
- Information technology (IT) to keep logistics going:
  - Promote IT applications and social media as innovative ways to coordinate supplies of fresh produce from farm to consumers.
  - Promote **innovative logistics and transport methods** for direct deliveries to semi- or urban populations, including delivery trucks, pick-ups or bicycles.
  - **Engage youth** (and youth groups) in this endeavour and facilitate ease of doing business through start up grants, subsidized credits or easy access to means of transport.
  - Inform and promote **the use of existing apps that have been developed to reduce food waste** in urban areas. The private sector can play a critical role particularly in this aspect.

FAO has developed this brief with contributions from: Heiko Bammann, Siobhan Kelly and Marco V. Sanchez Cantillo, Agricultural Development Economics Division (ESA); Nancy Aburto, Bin Liu, Cristina Scarpocchi and Florence Tartanac, Nutrition and Food Systems Division (ESN); Pascal Liu, Trade and Markets Division (EST).

Recommended citation: FAO. *Responding to the impact of the COVID-19 outbreak on food value chains through efficient logistics*