



## Food Processing in a Pandemic:



# Challenges and Responses for Africa's Food Processors Facing COVID-19



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# Across Africa, the food system is changing as a response to the COVID-19 pandemic.

Consumer behavior is shifting, markets and supply chains face new challenges, and food processing operations are trying to adapt. Even in the best of times, food processors are a vital link in value chains, supplying safe and nutritious food to consumers and providing a stable market for farmers, but the stress that the coronavirus crisis has placed on the food system highlights their importance.

While the work of food processors is more important than ever, the coronavirus pandemic is creating new challenges for these companies. The current crisis is changing the way these businesses are addressing four major components of their work:

- Workforce management
- Supply chains
- Markets, sales, and distribution
- Engagement with the industry ecosystem

It's important to understand these challenges and possible responses so that food processors can weather the crisis. To that end, TechnoServe has compiled these learnings, drawn from TechnoServe's experience working with processors and food systems across Africa; research on regional and global pandemic impacts; interviews with processors; and a survey of 106 food processors<sup>1</sup>.

The coronavirus pandemic is a new and evolving challenge; while we have early learnings, we know that we will learn more in the weeks and months to come. Nevertheless, we hope this early guide is a useful tool for understanding the challenges facing the sector and providing effective support.

## I. Workforce Management

The workforce is one of a food processing company's most valuable resources and is most vulnerable to the spread of the coronavirus. How can businesses keep their employees safe, happy, productive, and fairly compensated in light of the crisis? We've identified several challenges in workforce management—the significance increasing the more manual or labor-dependent processing operations are.

### CHALLENGES

- What to do should an employee/s test positive for coronavirus or be exposed to a confirmed case<sup>2</sup>
- Balancing staffing levels that maintain operations while also adhering to social distancing and minimizing group gatherings
- Procuring personal protective equipment for workers when there's a global shortage
- Adjusting good manufacturing practices to include coronavirus-appropriate safety, health, and hygiene protocols<sup>3</sup>
- Commuting difficulties for employees facing reduced availability of public transport, increased exposure on public transport, curfews, and lockdowns<sup>4</sup>

- The increased caretaker responsibilities often assigned to women likely to put added pressure on women employees
- Diminishing availability of workers, especially casual laborers, due to social distancing, people returning to rural homes during lockdowns, and increased caretaking
- Managing furloughs and layoffs, as well possible unemployment claims
- Functionality of external workforces disrupting support services, i.e. external consultants, repairs, maintenance
- Addressing employee stress, with heightened and prolonged disruption, both at home and at work
- Increasing chance of sick leave and possible staff losses should the pandemic worsen in the countries of operation—the elderly are particularly vulnerable, and these are often senior staff

### Survey responses to COVID-19 impact on workforce

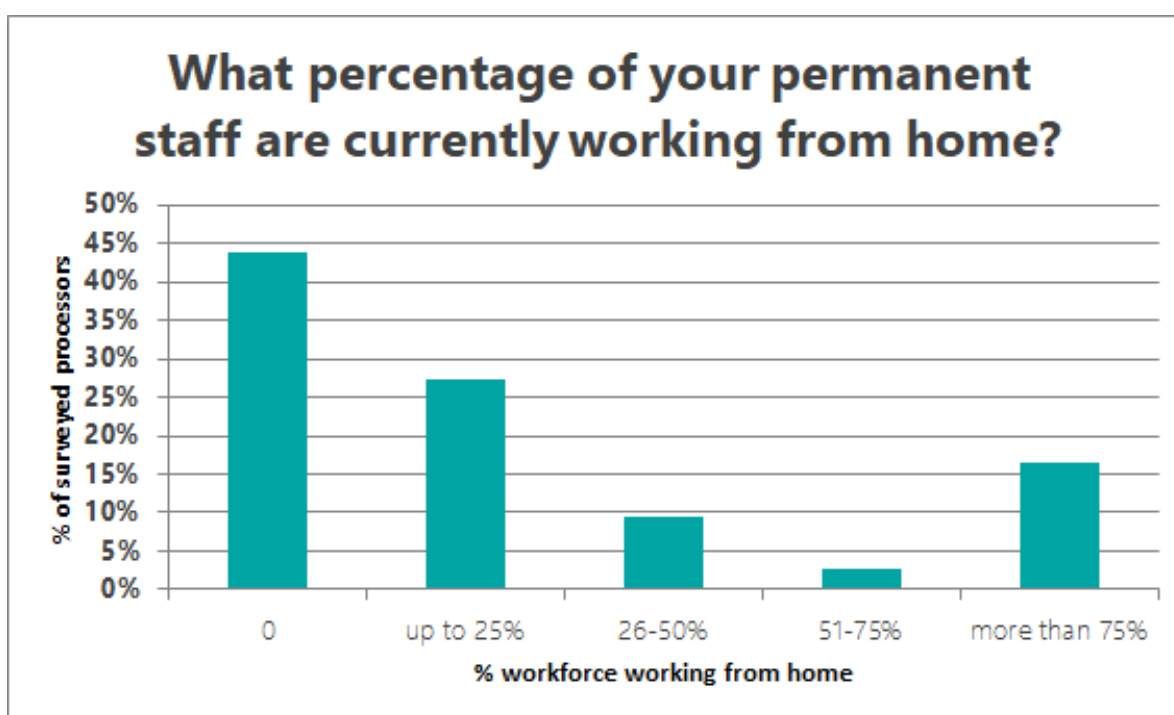


Chart 1A

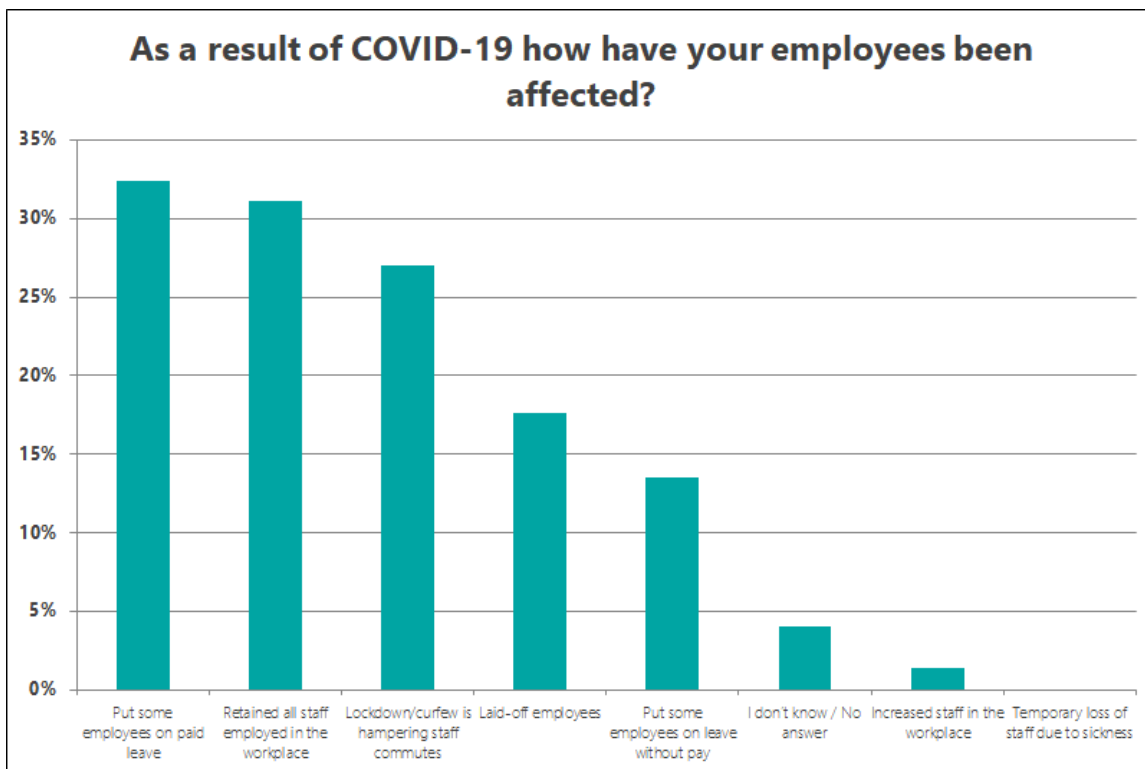


Chart 1B

## RESPONSES

The food processing sector in Africa can respond to the issues that the coronavirus pandemic has presented its workforce in a number of ways. Businesses should be helped to adopt protocols established by industry organizations for reacting to coronavirus cases, as well as best practices for preventing the spread of the disease<sup>6</sup> —for example, the joint recommendations published by the North America food-industry associations.<sup>7</sup> Like other quality or safety management systems, once the principles and protocols for adoption are understood, it will be important to tailor these recommendations for each new plant and ensure all staff understand and are familiar with the new protocols. There are still many unknowns with the virus and it is important to constantly update practices to reflect the latest understanding; for example, we have seen the expert consensus move in favor of everyone wearing masks.



Our business has not been affected yet, but we are taking all the necessary precautions to prevent infections by ensuring all management teams, employees and visitors wash their hands with hand sanitizer before getting in the factory."

*Flour miller, Tanzania*

Already, we have seen processors implement new policies to limit the risks to their workforce. In Nigeria, we've observed that some firms have asked employees over the age of 65 not to come to the plant, and to work from home when possible; a processor in Zambia has restricted work for anyone over 55. In many cases, office staff have been asked to work from home, while in rare cases, office staff can help on the plant



We are building the new facility...and hope to start production soon. Not sure yet how to install the processing line, as we would require a technician from the manufacturer of the equipment in China.”

*Grain and fortified porridge processor, Zambia*

floor to help with diminishing compensate for numbers. \*A number of processors across the continent have also prohibited visits from non-staff. Reducing shift sizes, and increasing the number of shifts, is one way to reduce staff density and maintain production. Exposure can also be reduced by creating split, on-site teams, with rotating schedules that do not allow teams to come into contact with each other: the smaller the teams the better, because if one team member falls ill, then the risk may be reduced to that team.

In other cases, companies can adopt creative solutions to new challenges. Providing private transportation and subsidizing daycare will make it safer and easier for employees to continue coming to work. In developed countries, some firms are offering bonuses to employees<sup>9</sup>, which may also be possible for some processors in emerging markets.

Firms can also identify creative ways to avoid lay-offs; not only is this a particularly hard time to be left unemployed, but there have been cases of companies over-reacting and releasing staff, only to regret the decision. Businesses should explore all support mechanisms that may

be available to them and consider negotiated wages or other packages before releasing staff. Several processors in Kenya have kept staff by having them on a rotation, i.e. one day or one week on, one day or week at home; production efficiency decreases, but it limits exposure and maintains employment.



Social distancing in the workplace<sup>6</sup>

## II. Supply Chains

Disruptions in food supply chains have been minimal so far, but they are already facing challenges in logistics. Food processors need a dependable supply of quality raw materials in order to maintain their operations, but the travel restrictions and changing behaviors resulting from the pandemic are disrupting the production and transportation of agricultural goods and industrial equipment. This is creating new challenges for food processing companies.

### CHALLENGES

- Increased consumption of many processed foods has created additional demand for raw material
- Difficulty for traders and other raw material suppliers to travel from rural areas to cities<sup>10</sup>
- Reduced supply and quality of raw materials<sup>11</sup>
- Perishable raw materials are particularly vulnerable to delayed transport, often leading to increased waste and spoilage
- Price volatility of raw materials increases as demand fluctuates and delivery becomes uncertain
- Risk of dependence on international trade for imported raw materials, like wheat and oil, with evidence of some countries withholding exports, increasing global prices
- Increased turnaround time for restocking personal protective equipment, packaging materials, consumables, spare parts, and imported materials<sup>12</sup>
- The strong dollar/local devaluation makes it costly to purchase materials and equipment<sup>13</sup>
- Limited cash flow for restocking
- COVID-19 logistical challenges will compound other natural hazards, such as the locust infestation already threatening food supply
- Long-term resupply risk as farmers deal with disruption to inputs and labor
- Knock-on effects experienced due to market disruptions, such as redirecting animal feed grain for human food, and in some cases the other way around (i.e. food destined for restaurants becoming animal feed)<sup>14</sup>

## Survey responses to supply interruptions due to COVID-19

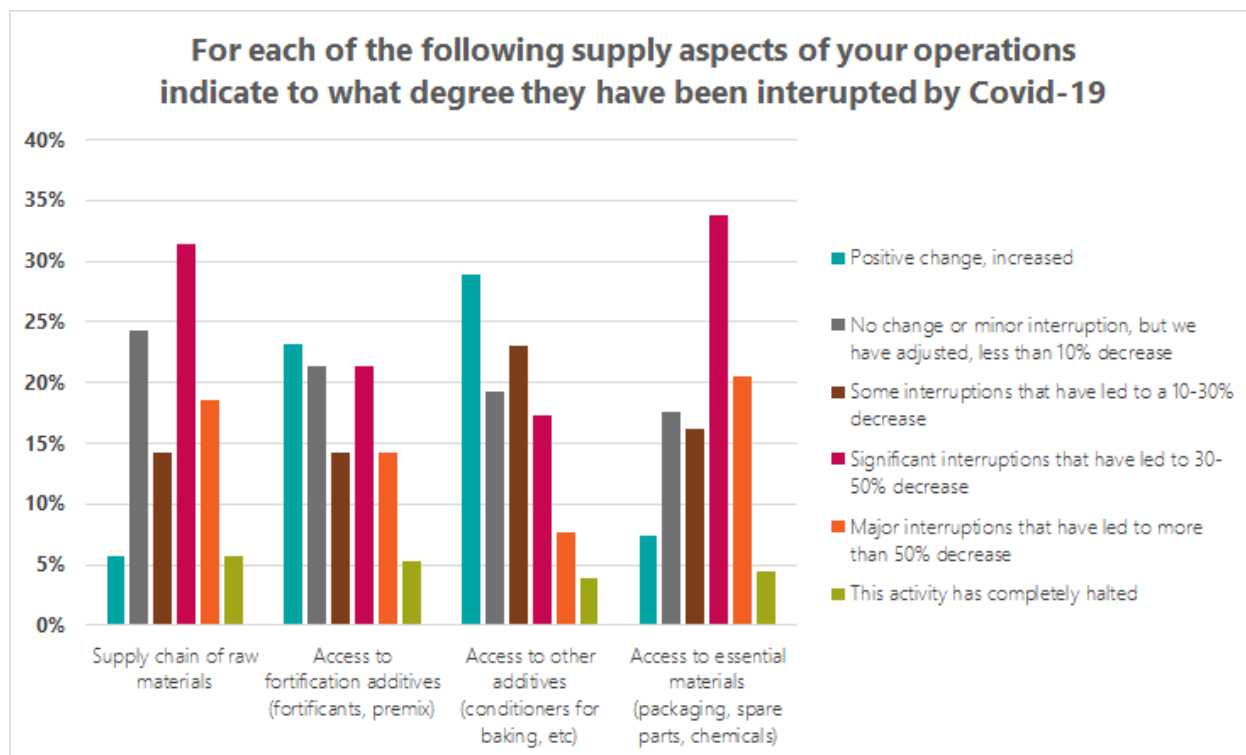


Chart 2

*Survey observation: The greatest interruption experienced has been in the supply of essential materials (like packaging material, chemicals, parts) raw material. Many processors of fortified products mention having adequate stocks of premix to meet the short-term demand (1-2 months), but have concerns if the situation escalates and imports of premix are disrupted.*

## RESPONSES

The sector can take a number of actions to address these supply issues. For sourcing raw materials, food processors can work with government agencies, industry bodies, the police, and local authorities to ensure that cargo related to the food supply chain is allowed to be shipped efficiently, focusing on logistical bottlenecks. In some instances official letters can be issued to facilitate movement. Processors can work with their traders and suppliers to understand their challenges and limitations; it may be a matter of meeting them halfway, for example with transport. Use and growth in e-commerce platforms can help with market awareness and trading; this includes the use of mobile payments to speed up transactions and reduce contamination. Processors with farmer contracts or vertical integration may benefit from more predictable supply, and there may be opportunities for processors to make more investments directly with farmers.



[We] will run out of machine spares due to the lockdown in some countries...we depend [on for] equipment."

*Food processor in Tanzania*





Maize suppliers fear bringing the commodity over distances, because they don't know where the curfew will find them."

*Food processor in Kenya*

Stockpiling may be one way to get ahead, but it can also prove useful to coordinate with peer companies to tap into more traders and share storage facilities, transport, and other mutually beneficial options. Stakeholders can support processors through advocacy and convening and help companies identify local suppliers for materials and equipment when possible. Stakeholders can also identify and link processors to financial options that may be available, especially new mechanisms created in response to COVID-19.

### III. Market, Sales, and Distribution

While the demand for certain segments of processed foods has increased dramatically as a result of the pandemic, some markets have collapsed, particularly those associated with the hospitality industry and fresh produce. In other cases, reaching consumers has become very challenging. TechnoServe's survey of processors found significantly more interruption in the marketing, distribution and sales of products than in the supply of materials for production, as evidenced by survey chart 2 versus chart 3.

#### CHALLENGES

- Surging and volatile<sup>3</sup> demand for some products and its impact on stock and operations<sup>5</sup>
- Changing shopping behavior, with consumers shopping less frequently, engaging in panic-buying and stockpiling, reducing daily purchases and foot traffic, making quicker visits, and shifting demand to online shopping and home delivery in an effort to reduce exposure.
- Shifts in how people are consuming food, with more home-prepared meals, less dining out, no school feeding options for students (at all levels), and closure of many office canteens
- Changing product demand:
  - Demand for service food is down, while retail food is up (closure of hospitality sector: tourism, hotels, restaurants)<sup>6</sup>
  - Surge in demand for long lasting, shelf-stable, food that can be prepared at home
  - Demand for high-value products likely to decrease as the economic impacts reach consumers and they adopt precautionary savings
  - Imports are impacted by devaluing local currencies and cargo issues
  - Demand for bread, eggs and meat is high, while dairy is down
  - Longer term, we may see an impact on animal feeds as more grain is redirected to human food
- Volatile prices due to changing demand; for example, with no restaurant market, we can expect to see lower prices for some products, like sugar and oil<sup>17</sup>, while high retail demand sees prices surge for some products, like rice<sup>18</sup>.
- Nutrition will be negatively impacted as the pandemic continues<sup>20</sup> and:
  - Demand shifts to shelf-stable, processed foods with lower nutritional value

- Diet diversity decreases, less fresh produce is selected or makes it to market
- Increased poverty results in fewer meals, conservative buying
- Reduced access, fewer markets, closure of school feeding programs<sup>21</sup>
- Reduced quality and safety due to demand, lack of staff, and disrupted inspection and testing
- Risk to compliant fortification of staples with delayed restocking of premix, equipment, reduced monitoring and alternative priorities by processors
- Restrictions on travel make it difficult to ship products to the distribution network, with delayed transport being particularly obstructive for fresh produce
- Increasing food waste as demand for some products and market segments fall, and distribution networks face challenges<sup>22</sup>
- Open air markets, farmer markets and street vendors face challenges due to decreased foot traffic, increased threat of exposure and difficulty for vendors to get to market due to lockdowns<sup>5</sup> and limited transport options, as well as their own ability to resupply<sup>23</sup>
- Firms may lack liquidity to fulfill commitments

### Survey responses to marketing, distribution, and sales interruptions due to COVID-19

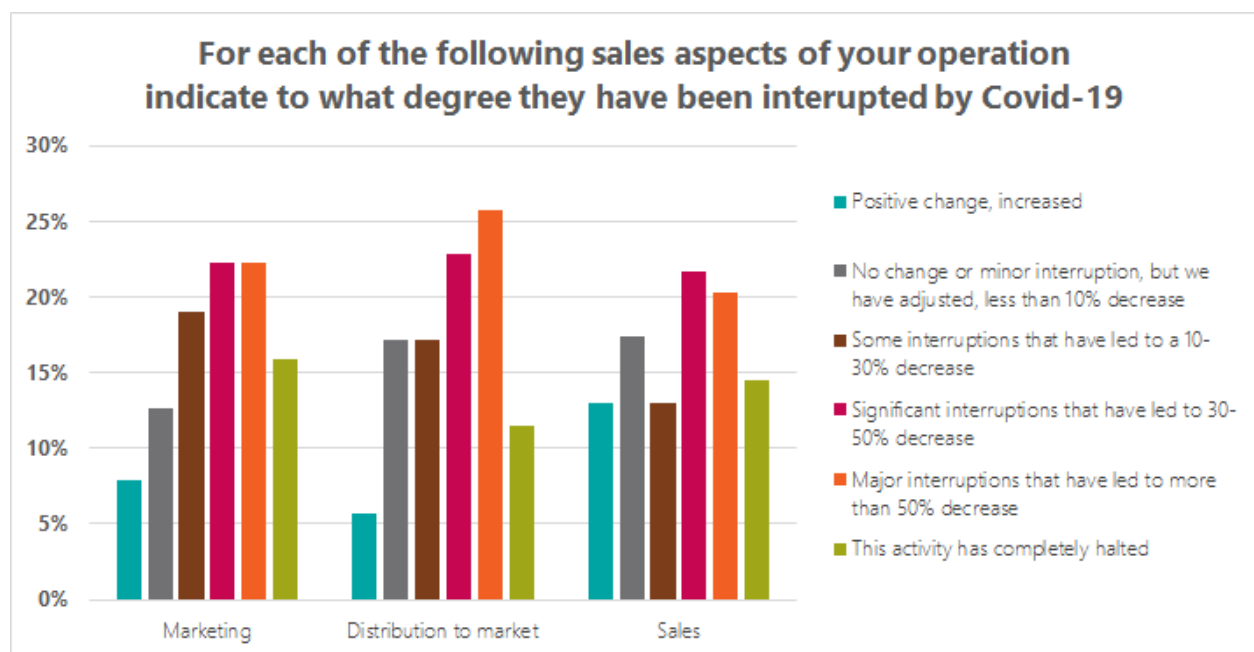


Chart 3

## RESPONSES

To address surging demand for certain products, food processors can do their best to build up stocks of key supplies and products and manage their shift rotation to keep up with production while also incorporating safe operating protocols. Support organizations can also help firms analyze the situation to develop contingency plans and risk assessments to support decision making. This might include product development to meet adjusted consumer behavior

and demand; for example, Cargill's product mix was 60% retail and 40% foodservice; by late March, it had shifted to 85% and 15%, respectively.<sup>24</sup> Companies with a large number of SKUs can focus efforts on the most essential and profitable ones.<sup>25</sup> New opportunities may also open up where import competition is diminished.

In other cases, policy solutions are an important part of addressing these challenges. To ensure that nutrition does not suffer, the sector should continue to advocate for fortification of staple products, ensure trade in vital premixes is not held up, and that compliance to standards does not slip. Lowering standards on food safety, quality, and nutrition will compound the epidemic, and processors can support their customers and community by maintaining standards. Processors can adopt strong self-regulating procedures and systems checks (like dosing rates of fortificants) to ensure quality. Governments may be redirecting resources to health issues, so it is especially important to have strong hygiene practices as the Ministries of Health step up enforcement of hygiene and safety protocols<sup>26</sup>.

E-commerce and mobile payments can help speed up transactions and improve cash flow, while also reducing the risk of contamination during transactions. To address falling demand, some governments have also provided financial assistance to firms in the food sector,<sup>27</sup> businesses can reach out to their creditors to determine if they have instituted any relief mechanisms, like mortgage forbearance, interest rate cuts and extended grace periods. While governments in Africa may have greater budget constraints that limit their financial aid to businesses during the crisis, international cooperation can help to close the funding gap.

## IV. Ecosystem

The far-reaching influence of the COVID-19 epidemic requires greater coordination and cooperation between businesses, governments, counterparts, and other stakeholders in the food processing industry. However, as these institutions and organizations are busy responding to the crisis, coordination can be difficult.

### CHALLENGES

- Firms are struggling to find reliable information and consistent advice
- Government policies and guidelines are not applied consistently<sup>28</sup>
- There is a lack of practical, actionable guidance for translating broad guidelines to the factory floor
- The evolving situation means that there is uncertainty about when lockdowns and other regulations will end and what guidelines will remain in place
- Firms lack awareness and instruction on relief efforts, financial aid and other schemes to assist businesses deal with the impact of COVID-19
- Communications difficulties, bans on in-person meetings, restricted travel and shifting priorities, may mean food processors do not have an adequate voice in shaping government policy



Payment terms of customers not favorable given current circumstances. To be paid 30 days after a statement by big supermarkets is hurting business when there is a need for working capital.”

*Survey respondent*

- Increased security risk to staff, goods and assets in some countries<sup>29</sup>
- Disruptions to the enabling environment and normal government monitoring and regulation operations

## RESPONSES

An unprecedented situation like the coronavirus pandemic requires an unprecedented degree of cooperation. Organizations that work with food processors can help by identifying reliable local, national, and global authorities<sup>30</sup> and aggregate the information and guidance they offer. Stakeholders can also survey firms to identify their primary challenges and top priorities and provide tailored solutions that respond to these needs.

It's also important to strengthen the industry associations at local and national level. These associations can serve as a liaison between the private and public sectors, advocating on behalf of firms about the need for clear guidelines and actions that support the sector, while providing the firms clear communication about government policies and relief mechanisms.



A lot of information is needed in the community. There is a lot of ignorance..[and] so many myths."

*Survey respondent*

## ADDRESSING AN EVOLVING SITUATION

The coronavirus was only declared a pandemic on March 11. The situation is new and evolving, and everyone--the private sector, civil society and government--is still learning how to adjust.

Economies have been hit hard, and as we move forward through the coming weeks and months, it will be more important than ever that we work together to share lessons learned, best practices, and research findings.

If you'd like more information about how TechnoServe's food processing programs are responding to the coronavirus pandemic, contact Brent Wibberley at [bwibberley@tns.org](mailto:bwibberley@tns.org).

### About TechnoServe's Food Processing Practice

TechnoServe has worked with over 1,500 food processors across Africa helping to build competitive businesses, support markets for farmers, and get safer, more nutritious foods to consumers.

For more information about TechnoServe's work in the sector, please contact Brent Wibberley, director for food processing and nutrition, at [bwibberley@tns.org](mailto:bwibberley@tns.org).

TechnoServe is proud to work with these partners in our assistance to food processors: USAID, Bill & Melinda Gates Foundation, Partners in Food Solutions, DFID, WFP, UNICEF, GAIN, ISF, Nutrition International, AB Inbev, Anglo, MUSIKA, Land O'Lakes, PATH, Abt Associates, BASF, BioAnalyt, Africa Milling School and many other local and international partners.

## About TechnoServe

TechnoServe is a leader in harnessing the power of the private sector to help people lift themselves out of poverty. A nonprofit organization operating in 29 countries, we work with hard working women and men in the developing world to build competitive farms, businesses, and industries. By linking people to information, capital, and markets, we have helped millions to create lasting prosperity for their families and communities.

TechnoServe was ranked the #1 nonprofit for reducing poverty by the independent charity rating agency, ImpactMatters.

## Endnotes

1. Online survey of 106 food processors from across Benin, Ethiopia, Kenya, Malawi, Nigeria, Tanzania, and Zambia, 7-9 April 2020: <https://www.technoserve.org/wp-content/uploads/2020/04/TechnoServe-Survey-of-Africas-Food-Processors-Facing-COVID-19.pdf>
2. <https://www.foodprocessing.com/industrynews/2020/tyson-shuts-iowa-plant-coronavirus/>
3. TechnoServe survey 6 Apr 2020, request information/advice on “How to ensure our products are not contaminated with the virus”, “how to be safe especially to the working area”
4. TechnoServe observations, e.g. some countries (and some owners) slower to react, seeing overcrowding on public transport, putting staff at risk. Some staff turned away at checkpoints
5. “The COVID-19 crisis has had a disastrous effect on the hospitality and non-food retail sectors with hundreds and thousands of workers suddenly at risk of being made redundant or placed on furlough. April 1, 2020  
<https://www.fdf.org.uk/news.aspx?article=8235>
6. <http://www.fao.org/fao-who-codexalimentarius/news-and-events/news-details/en/c/1270223/>
7. For example, the shared recommendations published by North America food-industry associations:  
[https://drive.google.com/file/d/1WUDdl699\\_a0GfC9S4EbfeiaJPcwkTEOO/view?pli=1](https://drive.google.com/file/d/1WUDdl699_a0GfC9S4EbfeiaJPcwkTEOO/view?pli=1)
8. General Mills is asking for office staffers to volunteer to work on the floors of its plants as it tries to maintain production levels during the coronavirus situation. <https://www.generalmills.com/en/News/NewsReleases/Library/2020/April/General-Mills-supports-employees-and-communities-in-response-to-COVID-19>
9. Workers are getting either one-time bonuses ranging up to \$1,500 (from J.M. Smucker Co.) or hourly raises of \$2 (Campbell Soup Co., National Beef and others). Other companies are also increasing paid sick leave, subsidizing child care and waiving co-pays for coronavirus testing. <https://www.foodprocessing.com/industrynews/2020/union-lauds-industry-for-coronavirus-bonuses>
10. India: Who is going to fill the grain bags and bring the produce to market, and transport it to mills.  
<https://www.reuters.com/article/us-health-coronavirus-food-supplies-insi/coronavirus-upends-global-food-supply-chains-in-latest-economic-shock-idUSKBN21L2V7>
11. TechnoServe observation, 31 Mar 2020, Kenya shortage of maize, quality issues appearing (i.e. aflatoxin), traders also feared being caught away from home when curfews/lockdowns enforced
12. TechnoServe observation, 31 Mar 2020, Nigeria holding cargo ships offshore for two weeks, before health screening crew and allowing them to dock and unload, also in Zambia a company experiencing delays of equipment ordered from China
13. TechnoServe survey
14. <https://www.hawaii.edu/news/2020/04/09/pigs-and-papaya-during-covid-19/>
15. TechnoServe observation, 31 Mar 2020, Kenya high demand for UHT (long life) milk and maize flour
16. TechnoServe survey Kenya 6 Apr 2020, “down for baked goods due to impact on airport services, hotels & restaurants”
17. <https://www.un.org/africarenewal/news/coronavirus/world-food-prices-drop-march-due-covid-19-and-oil>
18. <https://www.cnn.com/2020/04/08/rice-prices-surge-to-7-year-high-as-coronavirus-sparks-stockpiling.html>
19. <https://datalab.review.fao.org/dailyprices.html#>
20. Malnutrition set to increase, 6 Apr 2020, <https://www.devex.com/news/as-aid-groups-scramble-to-contain-covid-19-malnutrition-set-to-increase-96912>
21. WFP says nearly 9 million children are no longer receiving WFP-supported school meals, 320 million children around the world are missing school meals <https://www.foodnavigator.com/Article/2020/03/25/WFP-on-coronavirus-challenges-Every-country-we-re-operating-in-is-affected-by-COVID-19>
22. Food goes to waste amid the coronavirus outbreak. <https://www.politico.com/news/2020/04/05/food-waste-coronavirus-pandemic-164557>
23. Lockdown threatens Africa’s informal food trade <https://www.ifpri.org/blog/covid-19-lockdowns-threaten-africas-vital-informal-urban-food-trade>, NY street vendors close due to low foot traffic <https://ny.eater.com/2020/3/19/21185558/nyc-street-food-vendors-coronavirus>
24. <https://www.foodprocessing.com/articles/2020/how-the-coronavirus-is-affecting-food-processing/>

25. Kraft Heinz is turning its attention to packaged food production <https://www.foodprocessing.com/industrynews/2020/kraft-heinz-pivots-packaged-foods/>
26. TNS observation, Kenya, food processor shut down by Ministry of Health for not having adequate hygiene measures in place
27. "Heal Italy" serves as a model, allocating \$106 million to support farming, fisheries and aquaculture enterprises to cover the interests of loans and mortgages. <https://maximotorero.com/2020/03/23/covid-19-and-food-supply-a-four-pronged-battle-plan-for-countries/>
28. TechnoServe observation, 31 Mar 2020, e.g. some staff held up by military when commuting because not considered essential workers, when the government has said the food industry is essential
29. TNS has observed increased insecurity in several areas - theft, hijacking, harassment at checkpoints
30. Example of credible industry advice <https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/food-industry-resources/>