

Seed Alert

Introductory Brief

Photo: IAR&T

How does COVID-19 affect the seed sector?

Seed Alerts in Ethiopia, Nigeria, Myanmar and Uganda

To avoid a food crisis following the health crisis we currently face, urgent action is needed in the seed sector. This introductory brief outlines a collaborative effort to conduct rapid assessments by country of both the impact of COVID-19 and our response on different functions and practical activities in the seed sector. Our rapid assessments, appearing at least once a month, will contribute to developing immediate actions and interventions that will enhance resilience and support the continuity of activities in the seed sector, taking the unpredictability of the crisis and the seasonal dependency of the seed sector into account.

The COVID-19 pandemic is taking its toll in human lives. While communities focus on health and safety, governments take measures to cope with the impact. Not only are human lives being affected, but activity in society and in the economy in general are being disrupted in ways we have not seen before. As a novel virus and threat to humanity, we know very little about how this coronavirus affects agriculture, food security, and income generation, and we urgently need to determine the effects of this situation on agriculture.

Seed sector activities are seasonal and time-sensitive; they take place in farmers' and companies' fields or greenhouses and involve many interactions of stakeholders and market transactions. If we do not take immediate action to ensure that seed-related activities are performed, we risk setting off a chain reaction that might lead seed becoming scarce in the near future, which could contribute to a major food crisis.

A well-functioning seed sector is vital to securing future crop harvests and food production. What is at stake is the resilience of the seed sector and its constituent functions, namely: production, marketing, service delivery, regulation, coordination, and revenue generation and reinvestment, as well as the seed sector's contribution to agriculture.

"The resilience of the seed sector and its contribution to ensuring food security is at stake."

The pandemic and its impact on agriculture

The World Bank¹ is projecting that economic growth in Sub-Saharan Africa will decline from 2.4% in 2019, and contract by between 2.1% and 5.1% in 2020. This predicts the first recession in the region in 25 years. Agriculture is expected to be one of the most seriously impacted sectors, resulting in many countries in the region facing serious risk of food insecurity. With trade blockages becoming an ever more likely scenario, agricultural production could shrink by 2.6% to 7%.

Food imports are expected to decline substantially also, with estimates varying from 13% to 25%. The outlook for Asia is not good either. The Asian Development Bank² forecasts that regional economic growth in developing Asia will decline in 2020, suggesting a downward revision of 3.3% to 2.2%. The High Level Panel of Experts under the Committee on World Food Security³ indicates that the COVID-19 crisis is leading to instability in both local and global food markets, causing a disruption to food supply and availability.

The poorest people will be the most affected by these disruptions. At the same time, there is a fear that government and development partners will cut their agricultural spending and shift priority towards managing the immediate effects of the crisis in public health care.

1] World Bank, 2020. *An Analysis of Issues Shaping Africa's Economic Future. Africa's Pulse*, No. 21, Spring 2020. World Bank, Washington, DC ([link](#)). 2] Asian Development Bank, 2020. *Developing Asia Growth to Fall in 2020 on COVID-19 Impact*. ADB, Manila, ([link](#)). 3] HLPE, 2020. *Interim Issues Paper on the Impact of COVID-19 on Food Security and Nutrition*. HLPE Secretariat, Rome ([link](#)).

COVID-19 threat to the seed sector

The COVID-19 crisis is likely to affect the seed sector in multiple ways. We provide just a few examples:

- If variety trials are not visited and assessed by researchers, then no new varieties will be released.
- If employees cannot access greenhouses, then tomato seed production will fail, while if the detasseling of fields of maize inbred lines for hybrid seed production does not take place in a timely fashion, it can no longer be classified as seed.
- If inspectors cannot visit the fields of seed producers, the seed cannot be certified and sold.
- If transport is restricted, the disruption in seed distribution will lead to low stock at retail outlets, and little choice for farmers other than to turn to their own or their neighbors' harvests as a source of seed.
- If government measures do not adequately take these considerations into account during the months, when seed activities are needed the most, then everything is at risk.

One disruption in an activity in the chain can affect those after it, as illustrated by the examples above. Just a few poor decisions in one or more activities can diminish the resilience of the seed sector as a whole.

COVID-19 Alert

Wageningen Centre for Development Innovation (WCDI), part of Wageningen University and Research, in collaboration with its partners in seed programmes in Ethiopia, Myanmar, Nigeria, and Uganda, aims to raise awareness of the situation and its impact on the seed sector. The Alert informs decision makers in government, industry, research and civil society in the seed sector, where the impact is felt the most, and contributes to the

planning and implementation of immediate actions and interventions. Above all, it urges immediate and practical action. Beyond the immediate purpose of informing and urging practical action in the four selected countries, the partners are developing the Alert and rapid assessment as a global public good for contributing to enhanced seed sector resilience. The Alert complements other efforts that, for example, provide guidelines to the impact in terms of seed security.⁴

Countries and partners

WCDI guides seed sector transformation in a number of countries. The rapid assessment is being implemented in close collaboration with partners in the Integrated Seed Sector Development programs in Ethiopia (ISSD Ethiopia), Uganda (ISSD Plus), and Myanmar (ISSD Myanmar). WCDI collaborates in Nigeria with stakeholders on developing the National Seed Road Map and on designing the Nigeria–Netherlands Seed Project. The National Agricultural Seeds Council (NASC) and Sahel Consulting Agriculture & Nutrition Limited also contribute to the effort in Nigeria.

Method

The assessment is conducted on the country level through rapid remote survey and focus group discussions (FGDs). As activities in the seed sector are defined by specific crops, each country includes two crops or crop groups in each iteration. Iterations will be performed at least monthly for the full duration of the crisis.

4] Seed System, 2020. Seed Security Lessons + COVID-19 Lessons = Better Seed Security Response during the time of COVID-19. CRS, Baltimore ([link](#))

Figure 1. Model of seed sector transformation

Seed sector performance					
Performance of the sector to become more competitive, resilient, profitable, innovative and adaptive, sustainable, inclusive, resistant and transparent					
1. Service provision The capacity of the seed sector to provide high quality, inclusive and differentiated services to seed producers and seed value chain actors	2. Seed production systems The viability and sustainability of seed production systems	3. Seed market development The efficiency, fairness and transparency of seed value chains and seed markets	4. Revenue generation and reinvestment The capacity of the seed sector to generate revenues and make strategic re-investments	5. Seed sector coordination The degree of coordination, alignment and accountability among different seed stakeholders	6. Seed sector regulation and management Rules and systems that govern seed markets, production systems, service delivery, and coordination

The country partners establish a panel, including at least twenty experts representing government, research, industry, service delivery, and farmers' organizations. Panelists answer a fifteen-minute survey delivered by an application on their smartphone. The survey covers the full range of seed sector functions and seed value chain operations. More to the point, questions relate to the level of impact on practical activities within the current time frame. A summary of the results is generated and feeds into the FGDs. Each FGD brings around six experts together virtually to review the results, propose actions, and identify responsible stakeholders to take action. Their expertise with each crop and their practical experience in the seed sector determines their participation. As such, FGDs are crop-specific.

WCDI, with its national partners, will compile an Alert for each country using the outcomes of the survey and FGDs. The first and second Alert are published in early May and June 2020. These two months make up the pilot period of the project, after which the expectation is that the process will be taken up independently in each country.

Guided by seed sector transformation

We use the seed sector model shown in *Figure 1* in ensuring that all of the following six functions are addressed: 1. seed production, 2. seed markets, 3. seed-related services, 4. seed-related regulation, 5. seed sector coordination, and 6. seed sector revenue generation and reinvestment. The model allows the team to identify the most affected functions and vulnerable interactions within the seed sector, in order to direct the need for immediate action and interventions.

Provisional outline country briefs

WCDI and its partners structure the Alerts as follows:

- An outline of the most important and pressing challenges or alerts within the seed sector;
- Immediate actions for stakeholders to take the lead with in initiating and making a practical response; and
- A dashboard covering the current impact on:
 - (i) farmers' access to, and use of, quality seed, as well as
 - (ii) functions and activities within the seed value chains

Kick off of the pilot process

WCDI has developed this method and tool in close collaboration with its partners in the four countries. During the week of 20 April 2020, they were engaged in prototyping the survey, FGDs, analytical framework, and country brief format. Partners selected their focal crops or crop groups and compiled lists of expert panelists and participants for each FGD. They then ran the survey on 25 April.

In the week of 4 May, the FGDs are run in each country, immediately followed up with analysis and preparation of the briefs. From May 6th onwards, we publish and disseminate the Alert for each country in multiple media and, if feasible, through national webinars. A synthesis brief is compiled in the week of 11 May and shared globally. A global webinar is organized in collaboration with the ISSD Africa Community of Practice. We have the same sequence in mind for June, when the rapid assessment and Alerts will go through their second iteration.

Fig 1. Seed Alert example

Seed Alert
#01 May 2020

Seed Alerts identify current challenges and urgent action in the Nigerian seed sector, based on surveys and focus group discussions with various stakeholders

Ethiopia

Alert 1
Precautions hamper seed processing and distribution

Alert 2
Short supply of inputs and labour constrain seed production

Alert 3
Social distancing diminishes government's capability to coordinate EGS supply

Alert 4
Concern that substandard seed will make its way onto the market is heightened

Alert 1
Precautions hamper seed processing and distribution

What is the impact?

- COVID-19 and precautionary measures taken by government and society limit mobility of seed transporters and traders
- Because they fear surface transmission of the virus, workers are reluctant to operate equipment and perform loading and unloading tasks at seed processing facilities
- Transporters and retailers are reluctant to meet each other at points of exchange in the seed distribution network
- Retailers fear meeting transporters as they come from busier urban centres where the virus is suspected
- 90% of respondents in the survey believe that transport to and stock at points of seed sale will be negatively impacted by the crisis
- To avoid last minute rush to and congestion at retail outlets, government has given direction to companies to distribute their seed swiftly
- Indications are that good progress has been made, particularly in the case of maize, but processing and distribution of other cereals like wheat is still underway
- If momentum is not maintained and seed distribution is impeded, farmers will have little other choice but to turn to their own and their neighbours' grain harvests as a source of seed or delay planting in the expectation that seed will still be distributed, either of which could be detrimental both in terms of the quantity and quality of seeds harvested.

Dashboard

Outcomes of May Survey Ethiopia - Identification of FDG topics or Alerts

- Severe negative impact
- Negative impact
- Slight negative impact
- No impact; business as usual

Seed sector operations and services	Seed Alert May
Breeding on-station	■
Multilocational variety trials	■
Farmer variety trials	■
Variety release committee and release process	■
Production of early generation seed	■ Alert 2
Supply of early generation seed	■ Alert 3
Field inspection for seed quality assurance	■
Laboratory testing for seed quality assurance	■
Access agro-inputs for seed production	■ Alert 2
Access to labour for seed production	■ Alert 2
Field operations for seed production	■
Post-harvest practices for seed marketing	■ Alert 1
Seed import	■ Alert 1
Seed distribution	■
Seed & variety promotion	■
COVID-19 measures on mobility	■
Mobility of seed companies to point of sales/agro-dealers	■
Mobility of farmers to point of sales/agro-dealers	■
Mobility farmers to informal markets	■
Accessibility informal seed sources	■
Presence of substandard seed in markets	■ Alert 4
Sales of quality seed	■
Government funding of services	■
Government investment in marketing and distribution	■
Seed sector information sharing and coordination	■ Alert 3
Affordability of quality seed to farmers	■

Communication

In line with emerging lock-down restrictions in the countries in which our partners are based, the entire rapid assessment will be digital. The survey are app-based, and the FGDs take place virtually through videoconferencing. The team uses a variety of communication tools, including social media, blogs, video messages, and portals to share the Alert. The same applies for the rapid assessment tool, which is shared as a public good to a wide array of stakeholders, in order to assist in their efforts transforming agriculture in other low-income and middle-income countries.

About WCDI

Wageningen Centre for Development Innovation supports value creation by strengthening capacities for sustainable development. As the international expertise and capacity building institute of Wageningen University and Research, we bring knowledge into action, with the aim of exploring the potential of nature to improve the quality of life. WCDI's seed cluster is engaged in the design and implementation of programs that guide the transformation of seed sectors in several countries throughout the world. It has developed a strong reputation in taking an integrated or pluralistic approach to seed sector development, thus becoming a preferred partner to seed sector stakeholders in a number of countries. WCDI is in a unique position to lead this pilot, as it has a global network in the seed sector and leadership in expertise.

Team

WCDI's seed cluster includes staff with technical, facilitation, and communication expertise in the seed sector, who are supporting the effort to produce Alerts in the four countries. The team includes Abishkar Subedi, Arnab Gupta, Gareth Borman, James Mulkerrins, Mirjam Schaap, Marja Thijssen, and Walter de Boef. In Ethiopia, Amsalu Ayana and Mohammed Hassena of ISSD Ethiopia lead the country effort. In Myanmar, Swe Zin Myint Thein and Win Thein of ISSD Myanmar, Ministry of Agriculture, Livestock and Irrigation (MOALI), take the lead. Geoffrey Otim, Charles Ssemwogerere, and Bonny Ntare of ISSD Plus have joined in conducting the rapid assessments and produce and alerts. In Nigeria, the efforts are led by Folarin Okelola and Osundiya Olusegun of NASC, and by Chinedu Agbara of Sahel Consulting.

The Seed Alerts are published for multiple countries and are part of the WCDI Sector Transformation publications.

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