

# Ag2Nut Panel-Discussion: COVID-19, Food Systems & Malnutrition

April 2, 2020

## **Call information:**

- Event page, with recording: <https://anh-academy.org/academy-news-events/event/ag2nut/anh-academy-webinar-community-discussion-covid-19-and-food-systems>
- Panelists:
  - Tesfaye Hailu, Ethiopian Public Health Institute: brings the topic to the floor and outlines key questions and concerns, particularly focusing on Africa.
  - Stineke Oenema, UN SCN: presents a summary of [SCN's analysis of possible food environment disruptions](#) by COVID-19, highlighting some [resources](#) and examples of actions taken to mitigate the consequences; and what UN agencies are proposing to respond to the crisis.
  - Will Masters, Tufts University: discusses economic aspects of how supply chains and markets could change and what can keep them functioning.
  - Selena Ahmed, Montana State University: shares lessons learned from the current situation in China, where she researches food environments.
  - Namukolo Covic, A4NH/IFPRI: discusses nutrition and food system realities in Africa, and policy priorities to protect both.
- Moderator: Anna Herforth, Ag2Nut; Co-organizer: Cecilia Gonzalez, Ag2Nut.
- Collaborators: ANH Academy, UN SCN, Tufts University

## **Participant Comments & Questions arranged by theme, and Resources Shared:**

The following are comments received during the Ag2Nut panel and discussion on April 2, 2020. They are grouped into themes by co-organizers Anna Herforth and Cecilia Gonzalez. Resources to online documents or articles of interest are compiled at the end of this document.

Please send any other information, comments, questions, or resources on this topic to [ag2nut@gmail.com](mailto:ag2nut@gmail.com). We will update the synthesis document.

## **THEMES identified:**

1. Food Insecurity
2. Effects on food production, trade, prices
  - a. Concurrent challenge: Locusts in East Africa
3. Effect on food waste
4. Role of private sector innovation
5. Local production, underutilized species and agroecology
6. Prevention of future epidemics
7. Effect on diet: Highly processed foods
8. Interactions with malnutrition and health
9. Micronutrients
10. Are lockdowns effective/realistic
11. Gender

12. Migration
13. Need for data
14. Need for modeling
15. Programs, donors, and financial resources
16. [Uncategorized]
17. Next steps in the community
18. RESOURCES

## **FOOD INSECURITY**

### **From Tripati Khura:**

Due to the covid pandemic the small farmers would not be able to sell their produce as the lock down is going on. Added to it, people can't consume food according to RDA and this happens due to not being able to access food. In this juncture what other food they can intake and manage.

### **From Belay:**

The Covid-19 lockdown puts its biggest risk on the low-income populations who have less money to buy and store food at home (as these population usually get their daily food from their daily income generated). What approaches do you recommend from stakeholders to mitigate the Covid lockdown risk to food and nutrition to the low-income population?

### **From Nicole Metz:**

News from South Africa on Food Environment (see tweet @RuthHallPLAAS )  
Government has amended the #COVIDlockdown regulations to allow informal street traders and spaza shops to operate. This is where poor people make money and access food.  
#COVIDlockdownfood

### **From Mouhamed:**

Are we expecting a kind of "pseudo lean season" mainly in urban areas in Africa due to the lockdown effect the on food supply?

### **From Irmgard:**

There is an estimation in Germany that school feeding dependent children from low income families are getting more food insecure - any similar observations in SSA?

### **From florenceegal:**

School canteens is definitely an issue which is dealt with in different ways: NYC is organising food distribution at neighbourhood collection points for food insecure families, Finland has closed schools but maintains the canteens open. There should be an ad hoc working group exchanging information on this or similar topics.

### **From Laura Hackl:**

Will stocking up in certain populations lead to decreased food safety due to mold/ infestations?

## **EFFECTS ON FOOD PRODUCTION, TRADE, PRICES**

### **From Irmgard:**

Is there an idea how much food production and trade will be affected? Do you expect that food availability will be reduced by >50%

### **From ruerd ruben:**

Food staples are widely stocked and not in danger in the short & medium run (see IFPRI briefs)

### **From Annabelle Daburon:**

On a longer term, we could expect lower production of commodity food at global level, leading to potentially an increase of prices, leading to a "second wave" of food insecurity for several countries.

### **From Kate Schneider:**

How will the likely impacts vary based on when the crisis hits in the cropping cycle?

### **From npaudyal:**

In Nepal, we are facing challenge of crop harvesting (Wheat) in the month of April 2022 and crop plantation (rice and maize) in the mid of lockdown imposed by Covid 19. Even the fruit and vegetables are not reaching to market due to non-functional market system and transportation closer. What to do in this situation to maintain food system.

### **From Nadeem Iqbal:**

Lockdown has adverse effect of seed supply systems for sowing of spring crops.

### **From Irmgard:**

What will be the impact due to interrupted ag - trade - in terms of reduced income of foreign exchange - for energy supply in LMIC?

### **From Theresa Jeremias:**

To what extent are /will be import and export of staples food and other foods impacted?

### **From Brent Wibberley:**

Regulation of quality and (fortification) compliance also at risk with travel restrictions, reprioritizing resources, etc. e.g. seeing poor quality maize entering Kenya market with such high demand

### **From Irmgard:**

Germany is expecting rising food prices due to low availability of farm workers; and reduced production of vegetables and fruits - reduced planting due to reduced number of workers

### **From Jessica Raneri, writing from Australia:**

Regarding scope/efforts within the Indo-pacific: This region is often left off the global discussion table, despite the fact the East Timor and PNG have some of the highest rates of food insecurity and malnutrition/stunting in the world.

Approaches for these countries are different to other efforts, given the island already isolated geographical landscapes. They also rely incredibly on imported foods – especially rice from Vietnam which now is at risk given that Vietnam has blocked all future exports for the foreseeable future.

**From Jean-Christophe TOUDONOU:**

The west africa food supply depends on the importation and donation most of the time according each country demand

**From Ermias:**

The lock down and a ban on movement from food producing areas to cities has resulted in a tremendous decrease in supply, and an increase in demand. This resulted in a price increment. What should we do?

**From Laura:**

Can African countries prioritize their own dietary needs and local supply of food over the export of food products?

**From simba:**

African economies are mainly informal, so some of the solutions being put forward in developed countries do not apply in Africa. Also little or no social protection.

**From Keith Tomlins:**

Hi everyone. Prof Keith Tomlins, NRI, UK here. I thought I would mention some differences between food systems in LMICs and higher income countries. I speculate that the main differences between LMICs and high income countries are two things being a) LMICs tend to rely more on domestic markets for food supplies and less on imports and b) LMIC food systems tend to be informal systems. Regarding domestic markets, these may become vulnerable as key workers become ill from COVID19 and restriction of movement. LMICS may experience more severe food shortages because they will less able to import alternatives. Informal systems may be affected because authorities are likely to find it difficult to regulate and monitor and hence measure impact of any interventions to support reduction in food insecurity. This will be exacerbated if panic purchases become prevalent.

**From p.schmitter:**

Something that has not been brought up yet is the covid-19 effect on disruption of farmers' cropping schedules which will likely increase water demand for irrigation and, in some regions, intensify risks and tensions associated with water scarcity. Whilst there are direct impacts on food availability, supply, trade as we heard today affecting smallholder income, price fluctuations, food harvest losses etc., the access to seeds, inputs etc for the next season as well as the fact that for some countries the next rainy season is still very far away will have tremendous knock-on effects. Hence, something missing so far is the link to water access and the action needed now to ensure fresh as well as staple food availability in the future (not just within the coming 2-3 months).

**CONCURRENT CHALLENGE: LOCUSTS IN EAST AFRICA**

**From Rebecca Wanjiru:**

In the horn of Africa, we are recently facing food destruction by locust migration and to add to the anticipated impact on food systems by the pandemic, how will that look like? What can be done by the different players?

**From Ermias:**

Good point raised by Rebecca. it needs attention.

**From Jeanne Coffin-Schmitt:**

What is the locust situation currently? Will this impact available cereals that people would be shifting to in rural areas in East Africa/Pakistan/Middle East?

**From kwest:**

How is the current locust swarm imposing further constraints on ag to market food systems in East Africa?

**From Julien CHALIMBAUD:**

Looming FS & nut & locust crisis in sahel

**From Harriet Okronipa:**

Our East African folks - how is the locust situation now?

**From Kafkas Caprazli:**

@Harriet Okronipa: East Africa and Locust situation:  
<http://www.fao.org/news/story/en/item/1263547/icode/>

## **EFFECT ON FOOD WASTE**

**From Elizabeth Rehbein:**

Can anyone speak to how global or local food wastage is being affected by COVID-19? Have you heard of novel solutions to limiting or redirecting unconsumed food to help feed those in rural or food limited environments? How can we leverage wasted food, especially that wasted on the largest scales (retail rejections, farm waste, transportation), to provide nutritious food and improved food security?

**From Adil Daniel:**

We need to work on Food loss and waste in order to sustain ourselves in the limited supply of food

**From Keith Tomlins:**

A challenge of market disruption is the greater level of food waste. This is lost nutrition.

## **ROLE OF PRIVATE SECTOR INNOVATION**

**Marie Chantal Messier:**

1. Role of food companies & private sector (not just the SMEs but also MNCs) in maintaining a functioning food system in times of crisis – particularly for the poor. Examples beyond cash assistance could be enhanced local sourcing, pre-buying at a fixed price, paying premiums for keeping kids in schools, setting up a safety net within their value chain – eg. Interest free loans, employee volunteering, and so many other solutions could be put forward.

2. Effect of lock down on food security of daily earners who are often outside of the formal system (e.g. ladies who are selling in wet markets or on road sides) and their clients who also buy daily. What solutions can be put in place to minimize the impact on the food system and availability of foods.
3. What alternative routes-to-market can be put in place rapidly for local food producers to still deliver in a lockdown environment (e.g. I have seen local veg producers rapidly put together a website and offering to deliver at home).

**From Leonard Mizzi:**

What's the experience with e-commerce/delivery to avoid buying in supermarkets and having higher risks in terms of contagion; and whether digital agenda can be a true game changer or not. Also to link better small farmers -for better price transparency

**From India Hamilton:**

Are direct to home delivery systems financially viable? Rapid move to online POS could expand the market but if costs aren't properly mapped could they find themselves in debt?

**From Lourdes Marie:**

The role of digital technologies should really be a major question, as well as the digital divide-- there's a global shift to the web, but how to ensure information is diffused and accessible to everyone, including smallholder farmers? It might be interesting to see where they can influence nutrition, through education, sharing recipes, awareness, etc.

**From U944-H979:**

E-commerce Increases Across West Africa. Motorbike riders deliver goods purchased from stores, meals from restaurants or packages. However, in the West African nations, not everyone can access these services. Most businesses spoken to said it is mostly middle-class people or ex-pats using their services. <https://www.voanews.com/science-health/coronavirus-outbreak/e-commerce-increases-across-west-africa-covid-19-sweeps-world>

## **LOCAL PRODUCTION, UNDERUTILIZED SPECIES AND AGROECOLOGY**

**From Katrina Lundberg:**

I appreciated the reference that Selena made on agroecology having been effective in reducing the threat of food insecurity in the Chinese context, since this is also being advocated for broadly as a method to contribute to healthy and sustainable diets, this seems a good example of how current advice and state of knowledge can be highlighted to improve our food systems even post-pandemic.

**From Leonard Mizzi:**

We are scaling up our research on agroecology in EU; but can this be truly done at a bigger scale; as part of a true transformation process; do we have the convergence globally or is this a blocking point?

**From Jeanne Coffin-Schmitt:**

What is the expected role of food acquired from wild or natural systems?

**From Santiago:**

We must promote urban food production (vegetables, legumes)

**From Irmgard:**

How can we transform participatory nutrition education - to assist communities to use the available resources sustainably?

**From Lourdes Marie:**

I hope this will encourage research into local and localized food systems, as well as understanding the dimensions where they are more or less sustainable, the reasons why, and the gaps that exist to empowering them. I would link: <https://www.nature.com/news/a-new-global-research-agenda-for-food-1.21052>

Partnering with producers and actors along the food system for research will be key.

**From Gina Kennedy:**

The point of Namukolo about following seasonally food availability is important as is a deeper dive into Neglected and Underutilized species that grow in marginal soils and less than ideal conditions.

**From CTermote:**

I am thinking about promoting local traditional vegetables, teaching people that they are healthy and not food for the poor and they can easily be grown even in sacs, on walls, etc. (on very small spaces); supporting community seeds banks, for seed access...

**From Ermias:**

Thanks Ceilene for raising issue of community seed banks!

*COMMENTS AND QUESTIONS FROM SELENA'S PRESENTATION:*

**From Agnes Quisumbing:**

Interesting response on whether income has changed, it would be good to see if there are any at all (maybe none) whose income increased--possibly those who have innovated or those who have scarce resources that others need?

**From Stineke Oenema:**

Also interesting to know if the 20% who changed their diets are the more vulnerable ones?

**From jorge:**

Selena Ahmed mentioned Wild Food Environments being more resilient. Are these Community Food Forests? Wild foraged foods? Both? Would she please elaborate on this? Thanks

**From iMAC:**

Could you elaborate on Diversity at every level - land use mosaics

**From Gina Kennedy:**

The point being made about the Wild and Cultivated Food Environment in improving food access is an important point also a focus on Seasonality and when different foods are available seasonally

**From christurner:**

Really interesting to see Selena's preliminary results from China on the importance of natural food environments, including wild food harvesting and cultivated production. These non-market based sources of food are often overlooked within the food environment literature, as emphasis is typically placed on formal markets. We sought to broaden the conceptualisation of food environments in the Turner et al., (2018) paper/framework to include formal and informal markets, agricultural production, wild food harvesting, and gifts and transfers.

**From Sarah Stever:**

Thank you for mentioning the influx of outsiders into reservations to purchase from provision stores! so important and so under-discussed!

**From Karyn:**

Very interesting! How are you measuring/determining hh and systems level resilience in this context?

**From BDessalegn:**

What was the sample size?

**From Kafkas Caprazli:**

@Selena Ahmed: What was your method to assess the impacts on food insecurity; like SDG indicator 2.1.2?

**From Andrew T-L:**

Did you ask about directionality of change?

**From andreagalante:**

Selena, very interesting your presentation, could you please share more details about your research?

## **PREVENTION OF FUTURE EPIDEMICS: INFORMAL FOOD ENVIRONMENT**

**From Katharine Kreis:**

Another issue to consider is to reduce the risk of consuming wild meat to reduce the risk of additional zoonotics and to protect the environmental system.

**From Shiva Bhandari:**

Are we thinking about how food environments (especially food safety issues) might also contribute towards the epidemics, which in turn lead to food insecurity, low dietary diversity, and poor nutritional outcomes? What are the short-term and long-term approaches to deal with these conditions? How can we prevent future outbreaks related to food-borne or food safety issues?

**From Stacia Nordin:**

In relation to wild foods - There is a campaign here in Malawi "Don't eat Bushmeat" but there are a lot of safe 'wild' animals and insects and I've started reading on what "Bushmeat" is limited to. I'm a vegetarian deer hunter and think deer would fall into 'bushmeat'? I included a picture of the campaign.

**From Giulia:**

Does anyone have observations or resources to share on how informal/wet markets around the world have been impacted, and the implications for food security of low-income urban populations? The evidence of the origins of the virus in the Wuhan seafood market are not conclusive, but have raised many questions around their regulation. As already mentioned by panellists it is hard for social distancing to be enforced in them too. - Giulia, IIED UK

**From Fiorella:**

Are there any thoughts on the interactions of "food systems "failures" and spread of infectious diseases? is this an opportunity to reframe how we produce, distribute, consume and dispose of our food?

**From Edward Alexander:**

Shocking that China has reportedly reopened the Wet Markets, which appears to be the source of Covid-19 and prior nasty viruses. Recommend that the wet markets be closed?

## **EFFECT ON DIET: HIGHLY PROCESSED FOODS**

**From Irmgard:**

Has anyone observed whether more highly processed foods have been consumed meanwhile?

**From Anna Herforth:**

This is an issue in the U.S., when people depend on food assistance, often it is highly processed packaged food, rather than fresh foods.

**Florence Egal:**

It depends where. In Italy fresh food availability is not a problem for now, and prices are affordable there are still a lot of small shops and people spend more time cooking so are willing to innovate (food is part of the culture) so yes diets are likely more diversified and less consumption of ultra-processed foods. This is probably not the case though for the poorest and more vulnerable population groups

**From Suneetha:**

On processed foods, based on personal communication, yes, there is lot of consumption of processed foods and that combined with sedentary life this epidemic imposes is a real threat to health

**From Nicole Metz:**

In NL farmers are calling for consumption of more French fries, as the potato sector cannot sell a big volume of potatoes at export markets (i.e. risk that more French fries are consumed, which is not nutritious)...

**From Kristina Granger:**

I think it will be key to consider and investigate the long-term impacts on desirability of processed vs fresh fruits and veg.

**From Michelle Ramírez:**

Corinna [Hawkes], talking about your collaboration in The Lancet in double burden of malnutrition; which are the policy opportunities during and after the pandemic? Shall this be an opportunity to strengthen those policies direct to the regulation of unhealthy processed food?

## **INTERACTIONS WITH MALNUTRITION AND HEALTH**

### **From SGILLESPIE:**

Important also to return to lessons learned re: food and nutrition security interactions with other epidemics e.g. Ebola and AIDS. HOW WILL COVID-19 AFFECT FOOD AND NUTRITION SECURITY IN THE GLOBAL SOUTH? <https://bit.ly/2WVdLoX>

### **From Theresa Jeremias:**

What can we learn from the ebola outbreak? What are the best measures to be put in place to keep people food secure and prevent more malnutrition.

### **From Keith Tomlins:**

Hi everyone. If we want to know how food systems were affected, an example might be Sierra Leone where food systems were severely disrupted during the Ebola outbreak in 2014. The price of many staples increased by 150%. Also, those working in the food production sector were affected either by the disease directly or restriction in movement, which further reduced supply. However, the priority was to stop the epidemic. A similar effect was noted back in 1918-1920 during the Spanish Flu pandemic but not so much was recorded at the time.

### **From Asnake Ararsa Irenso:**

What can be the influence of the undiagnosed medical comorbidities in resource limited settings? This can be chronic conditions such as diabetes or undiagnosed mild/moderate child undernutrition? how can related uncertainties be addressed?

### **From Mouhamed:**

Are data from China (with 1 baby policy), Europe or America in terms of vulnerability extrapolable to African population? Can we state that children are less vulnerable in African context (mainly in rural areas)?

### **From Irmgard:**

What is the expected prevalence of people at risk if we do not look only at age? 30-40% NCDs, Cancer, Obese etc?

### **From SGILLESPIE:**

As with HIV and AIDS, we should think about a) upstream vulnerability due to food insecurity and malnutrition....and b) downstream impacts of covid on food and nutrition security. The former may be quite significant...and we're learning more about obesity and NCDs as risk factors for serious illness.

### **From anadeaconu:**

Hi - Does anyone have knowledge on whether COVID severity at an individual level is more linked to micronutrient deficiency, or whether it's more linked to chronic disease related to overweight (diabetes, heart disease..)?

**From Akablan:**

In Africa majority of population are in "lower" risk group , only about 6% >65 years old, yet the universal WHO guidelines are applied, how do you see this will have an effect on child nutrition (direct & indirect)?

**From Irmgard:**

To my understanding 30% of severe cases are between 30 and 60 years - and if they get access to proper treatment survive. Any estimations in regard to mortality risks in this age group without intubation facilities?

**From Julien CHALIMBAUD:**

What about access to health services and continuation of nutrition treatments for U5?

**From Michael Ofire:**

It would be interesting also to hear about covid-19 nutrition management at the patient level. With reduced movement of food from rural areas to urban areas, we are at-risk of shifting the prevalence of under nutrition from the rural poor to the urban poor, leading to immunosuppression and increased risk of infection. What types of special programs could be implemented for the urban population to mitigate these?

**From Arine Valstar:**

In the current nutrition sensitive value chain analysis in Oman we are looking at promoting production and consumption of vegetables and fruits to address various health problems, especially those rich in beta-carotene like carrots and papaya. We flagged the opportunity to mention their protective effect on disease to the MOH because indeed all communication until mid March focused on preventing contact with the virus. Indeed this is the time that people will be more responsive to promoting healthy diets as protectors against disease.

**From amenefee:**

It would be interesting to hear how breastfeeding is impacted and if there is increased use of BMS purchase and use?

**From Asnake Irenso:**

Some points on the COVID-19 challenges in Ethiopia: 1. perceived severity among the community 2. The last 4 years political situations has weakened the health system. Especially, the community based health. For instance, the popular movement had negatively influenced the health development army, which was valuable structure to disseminate health information and mobilize the community members in prevention strategies.

**From Swetha Manohar:**

While there is an important focus on food systems, I wonder too about the changes in screening and identifying high risk children with severe acute malnutrition too and if there are different approaches to identify and treat such children at this time.

**From Brent Wibberley:**

Any research/findings on perhaps a positive spinoff of another nutrition/system issue - reduced FBDs with such a global hygiene push?

## **MICRONUTRIENTS**

### **From kwest:**

While we seek to improve food systems, preschool 6-monthly vitamin A supplementation should continue as low-touch, effective way to reduce severity of infection and mortality. Model that could be relevant to COVID-19 reduces severity of measles virus infection via several likely pathways: protects barrier integrity and innate immunity at epithelial linings and likely restricts viral spread within tissues accelerating recovery.

### **From akablan:**

This article provide a nice summary of micronutrients & infectious diseases: The Interaction between Nutrition and Infection by Peter Katona and Judit Katona-Apte

### **From Ekin:**

Dear All - suggest reading this blog by Dr Erick Boy, MD on the micronutrients needed to boost immune system

<https://www.harvestplus.org/knowledge-market/in-the-news/coronavirus-pandemic-highlights-need-ensure-good-nutrition>

### **From gwangge:**

Some review of micronutrients potential are included in this paper

<https://doi.org/10.1002/jmv.25707>

### **From Noreen Mucha:**

Zinc to shorten duration of illness?

### **From Edward Alexander:**

Zinc is strongly beneficial for resistance to virus infection but most grains are high in antinutrients that inhibit zinc absorption from foods. FERMENTED foods beneficial for breaking down the antinutrients such as phytic acid.

### **From Edward Alexander:**

Golden rice is a good example of technology boost to common nutrient insufficiency--in areas where rice is grown. Also sweet potatoes for improved vitamin A that is crucial for resistance to pneumonia and lung disease.

### **From akablan:**

Golden Rice still needs approvals (Propagation approval in Philippines) , Food, feed & processing plus propagating in Bangladesh , Indonesia

### **From florenceegal:**

Interesting, people have been talking of vitamin D but so far I had not heard about vitamin A in the context of Covid19...

### **From Theresa Jeremias:**

Yes what is the evidence for Vitamin D and other micronutrients? I have also not heard of vitamin A but makes sense..

**From Keith Tomlins:**

A challenge with biofortified more nutritious foods such as orange sweet potato is that it is still not a commonly found item in many markets. Am I correct?

**ARE LOCKDOWNS EFFECTIVE / REALISTIC**

**From BDessalegn:**

As a large majority of the populations in African and South Asian populations are poor with hardly any savings, lockdown measures may not be effective as people would have to go out and work for their daily bread. Absence of social safety nets in these countries will make it difficult to control the pandemic in those countries.

**From prof.kb Narayana:**

Lock down does it benefit of covid19 control..? includes India..

**From Suneetha:**

Well, we hope it benefits. But the India situation is very complicated. As we have a lot of cross-state and cross-border migration. Overnight they have nowhere to go and from what I understand, they are traveling in groups from place to place. That cannot be good for transmission, leave alone all the ethical implications of this situation.

**From thuyh:**

It is hard also in developing countries with a big informal labor market

**From Lillian:**

What would the dynamics of restricted movements look like for Rural versus Urban settings in Africa?

**GENDER**

**From Michelle Ramírez:**

How this pandemic will affect women involved in food systems? Should we make a strategy that involves measures that involve gender?

**From Helen:**

Echo Michelle Ramirez's question about gender dynamics and any initial findings from gender analyses of COVID implications on food systems

**From Lilian Nkengla:**

To consider is increased unpaid care work [from lockdowns] for especially women to cater for children and the sick. Likelihood of increase in GBV due to social stress.

**MIGRATION**

**From Florence Egal:**

Is there evidence of outmigration from Addis Ababa and other African cities as people lose their livelihoods or escape from the disease?

**From Charles Opiyo:**

In Uganda for example many people from urban areas moved to villages and this is putting more pressure on the meagre food reserves of the poor rural farming households, they are not producing but consuming the little

**From Kevin Queenan:**

Interesting that lockdown has had the (temporary) effect of de-urbanisation, against the flow of food supply.

**From Kafkas Caprazli:**

In Italy and probably other countries too: seasonal workers (many of them being illegal migrants, cheap labour force) have left the country.

**From Dr HELLOW:**

HELLOW from VSF-Suisse : Thank you very much for this opportunity to share in this very difficult moment. I would like to speak about the impact of lockdown on transhumant populations and their cattle in sub-saharan africa region; In this period, they are moving from the sahel region to coastal countries (for example from Burkina Faso to Benin and Togo). At this moment which borders are supposed to be closed, they will not be able to move easily and they will probably be conséquences on their livestocks event in the host countries. That is one of the points of attention which must be monitored.

## NEED FOR DATA

**From Lillian:**

Is Real Time data being collected as the pandemic unfolds? We might learn the most from COVIDS impact on food systems and nutrition in retrospect.

**From Ty Beal:**

Is anyone aware of real-time price tracking of nutritious foods?

**From Irmgard:**

Has anyone observed food prices going up already?

**From Irmgard:**

In which directions is diet changing?  
Less foods? different quality? less fruits and vegetables?

**From Anna Herforth:**

Selena showed very interesting data that within 1 month of pandemic, diets did not change. BUT...will there be an impact on diet after several months? How about next season? How will the impact be different for those who rely on built vs natural food environments?

**From Corinna Hawkes:**

Is anyone monitoring all of these food systems changes in LMICs?

**From Florence Egal:**

Any report in changes of consumers' food practices and small producers livelihoods?

**From Brent Wibberley:**

Data will be essential to adaptation, how can we coordinate this better and how can we make this accessible for all?

**From ALBERT STEENBERGEN:**

Thank you to all speakers. Very interesting information and insights. I'm working for a NGO (Agriterro in NL) and we would like to inform our clients (cooperatives, unions and governments) with practical information about their value chain, crops and commodities and business outlooks, now affected by COVID-19 or government regulations. Most data on is highly general and not suitable for producer coops and farmers. Where can I find practical farming based information? Thank you.

**NEED FOR MODELING**

**Lillian:**

Is there a projected analysis, for instance on restrictions for food movement, in-country and from imports, exports?

**From Laura Hackl:**

Are there any good publications yet regarding scenarios on the economic effects of this in different populations?

**From Michael Ofire:**

Is it possible to have predictive models for food shortage, especially in the urban centers, as transportation of food products becomes challenging over time. A probable shift of the prevalence of undernutrition from the rural poor to the urban population? Could we have predictive models for food shortage across the various geographies to help in predicting malnutrition, to help instill austerity measures in advance?

**From akablan:**

In Africa you have high % of TB, & immunocompromised subjects (with HIV-AIDs) - combined with malnutrition this would be a "perfect" storm - how do you anticipate COVID-19 impacts in lights of this? Do you know of any "modeling" that has been done?

**PROGRAMS, DONORS & FINANCIAL RESOURCES**

**From Marti van Liere:**

what about the impact of ongoing nutrition programmes / interventions by governments, NGO's UN agencies .... how are they impacted? are they on hold, or continuing, still reaching the vulnerable?

**From Yanlin Ren:**

Should development partners consider allocating existing funding for COVID-19 mitigation?

**From Yurika Ueda:**

Does this pandemic affect budget allocation of donors/organizations - more resources to emergency assistance and delaying nutrition-sensitive programming?

**From rpenner:**

Regarding how funding may be redirected to due COVID-19: <https://www.usaid.gov/work-usaid/resources-for-partners/covid-19-guidance-implementing-partners>

**From U944-H979:**

Dear Namukulo COVIC: Which type of support does the African Union need right now on making sure budget resources are not moved from agriculture to health mainly?

**From thuyh:**

Is there any fund that can support to data for supporting the policy scoping with the COVID-19 impacts? Does anyone know?

**From Kimenju:**

What are the research funding opportunities on Covid and nutrition?

**From Leonard Mizzi:**

Important to look at this from a truly multidisciplinary way- where health-nutrition-food and agriculture communicate more and not in silos. But clearly not easy from an operational perspective. And how to anticipate for future-with robust research

**From iPhone:**

Food systems have to be redesigned for resilience first, ideally for health promoting qualities. However, health care systems must also co-evolve to more effectively prevent and treat new epidemic diseases , which are periodic but still unpredictable regarding penetrance, virulence, transmissibility and overall impact. Food systems operate within larger trans-sectoral environments. How do we coordinate public health with an already complicated food systems proposition with so many non public health actors?

**From patricianorthover:**

How do we address the problem of governments being downgraded in context of the coronavirus pandemic, e.g. South Africa's down grade to Junk status. Where is the moral responsibility of the financial institutions in this matter, and need for debt relief.

**UNCATEGORIZED**

**From Julien CHALIMBAUD:**

Maybe relevant to go back to lessons learnt from food price crisis in 2008 in crisis management / research

**From Marti van Liere:**

Also return to lessons on seasonal food insecurity and coping strategies

**From florenceegal:**

In Europe small-scale producers and civil society have moved first on the food front, respectively looking for alternatives to sell their products and expanding/adapting social protection programmes.

**From Lourdes Marie:**

We also need to understand what are the needs of farmworkers in their contexts. United Farmworks in the USA have mentioned that non-unionized farmworkers do not have access to information in an easily accessible way.

**From Suneetha:**

Agree [with Will Masters] there are lot of parallels. With COVID, there are a lot of large scale and global level covariant shocks going on at the same time and that is more challenging and different than other epidemics.

**From Florian Doerr:**

I agree [with Stineke Oenema] - we should understand the multiple crises holistically and how they interlink.

## **NEXT STEPS IN THE COMMUNITY**

**From Suneetha:**

Just to say that the ANH academy will be organising seminars with our partners on how Public Health Research has changed due to covid and what innovations are out there in how we do research

Another idea for the ANH-Academy Webinar is about nutrition policy for '1000 days' in the the time of COVID; Speaker suggestions are welcome

And let us know what else you would like us to do, with our partners such as Ag2NUT on this topic. Other non-COVID related suggestions are also welcome.

**From Corinna Hawkes:**

I'd love to hear from anyone who knows about the different food policies governments are putting into place to address food issues in the COVID-19 context (corinna.hawkes@city.ac.uk). I am with the Centre for. Food Policy UK

**From florenceegal:**

Corinna, I guess you are on the Food for Cities Dgroup and are aware of the work carried out by Johns Hopkins on Food Policy. Not government though, I wonder anyway whether a territorial approach (obviously supported by/linking into government or cross-country policies) would not be the most pragmatic approach.

**Lina Mahy:**

I agree with Stuart G. I would be very interested to have the summary of the questions. I am working in the food systems unit at WHO and we want to know what we, as WHO, should focus on with regard to needs for answers. We need to avoid overlap and doing work in parallel.

**From Leonard Mizzi:**

How to really have a UN Food Systems Summit which can be a true game changer to transform global agrifood systems-post Covid

**From dorahmomanyi:**

Nutritious Agriculture network NAN is doing similar online study and we could be delighted to share the results.

(NAN, Kenya) have an ongoing online forum referred to as COVID-19 FOOD STORY where participants in my network are answering questions in regards to changes in their food during this pandemic. This ends in a week's time, I would love to share the results here. They could answer some questions. Where can I share the results?

**From Anna Herforth:**

Please send any other information, comments, questions, or resources on this topic to [aq2nut@gmail.com](mailto:aq2nut@gmail.com). We will update the synthesis document.

## RESOURCES

**Joe Yates, ANH:**

Check out the COVID-19 Resources page on the ANH website. In particular, we invite you to share your perspectives on COVID-19 food system impacts through an open-access global community map. This can be found at [bit.ly/ANH-COVID](http://bit.ly/ANH-COVID)

**From Sarah Longford:**

- Please see advocacy piece - joint op-ed by CFS Chair and UN SG Special Envoy for the Food Systems Summit. <https://www.project-syndicate.org/commentary/covid19-threatens-to-unleash-global-food-insecurity-by-thanawat-tiensin-et-al-2020-03>
- For the last 18 months, Committee on World Food Security stakeholders across regions have been developing Voluntary Guidelines on Food Systems for Nutrition (VGFSyN). Latest version of the document - the basis for negotiations – is available at <http://www.fao.org/cfs/workingspace/workstreams/nutrition-workstream/en/>  
They provide guidance on a mix of regulatory, fiscal, and other policy actions spanning the diversity of food supply chains, food environment and consumer behavior, as well as the drivers and people that shape those actions. Amid the COVID-19 pandemic, the actions recommended in Part 3 take on increased importance especially the need for collective action in addressing food safety. French, Spanish, Chinese, Russian and Arabic language versions will be available shortly. For any questions please contact [CFS@fao.org](mailto:CFS@fao.org)

**From florenceegal:**

For discussions on impact of Covid19 on food systems, join the Dgroup Food for Cities <http://www.fao.org/fcit/fcit-home/en/>

**From JGARRETT:**

CGIAR has made all research and analysis available on a dedicated Covid-19 page. <https://www.cgiar.org/news-events/all-news/our-response-to-covid-19/>

**From iPhone:**

IFPRI Insights Special Issue: Analysis of COVID-19's Current and Projected Impacts on Developing Regions and Countries. <https://www.ifpri.org/spotlight/ifpri-resources-and-analyses-coronavirus-disease-covid-19-pandemic>

**From Alessandra Mora:**

The COVID-19 pandemic is disrupting people's food environments: a resource list on Food Systems and Nutrition responses: <https://www.unscn.org/en/news-events/recent-news?idnews=2039>  
<https://www.unscn.org/en/news-events/recent-news?idnews=2040>

**From Kafkas Caprazli:**

- info: on mitigating impacts of COVID-19 on food trade and markets see also: <http://www.fao.org/news/story/en/item/1268719/icode/>
- info: COVID-19 and the risk to food supply chains: How to respond? <http://www.fao.org/3/ca8388en/CA8388EN.pdf>
- info: UN Committee on World Food Security (CFS), High-Level Panel of Experts on Food Security and Nutrition (HLPE): Impact of COVID-19 on Food Security and Nutrition (24 MAR 2020). <https://drive.google.com/file/d/1pXiZW267w7n12VXGG-o78Uhl7BPaxGBt/view>

(Last link also shared by **From Maya Hage Ali**)

**From Peiman Milani:**

Rwanda's safety net is directly supplying food to lowest-income citizens affected by the lockdown: <https://www.newtimes.co.rw/opinions/editorial-focus-and-preparedness-will-defeat-virus>

**From Suneetha:**

A fabulous blog from India, also featured in the ANH Academy Newsletter. <https://www.ideasforindia.in/topics/agriculture/food-and-agriculture-during-a-pandemic-managing-the-consequences.html>

**From Corinna Hawkes:**

This may be of interest - we try and spell out what are the probable effects of COVID-19 (and the efforts to control it) on the food system which shapes our access to nutritious food <https://www.gainhealth.org/media/news/covid-19-crisis-and-food-systems-addressing-threats-creating-opportunities>

**From Florian Doerr:**

Here are two new FAO policy briefs on healthy diets and maintaining food supply chains <http://www.fao.org/2019-ncov/resources/policy-briefs/en/>

**From Penghwinde:**

<https://www.linkedin.com/pulse/covid-19-pandemic-how-affect-nutrition-children-mohammed-abdul-razak/?trackingId=Nyvy2aJkS7idSs1ouNYtOw%3D%3D>

**From U944-H979:**

E-commerce Increases Across West Africa. Motorbike riders deliver goods purchased from stores, meals from restaurants or packages. However, in the West African nations, not everyone can access these services. Most businesses spoken to said it is mostly middle-class people or ex-pats using their services. <https://www.voanews.com/science-health/coronavirus-outbreak/e-commerce-increases-across-west-africa-covid-19-sweeps-world>

**From jorge:**

Free Food For Future: Worldwide Community food Forest Network:

<https://vimeo.com/393460833>

Vision From The Future <https://freefoodforfuture.org/vision-from-the-future/>

*“The following vision statement tells the story of our project 10 years from now. It is NOT speaking about events that could happen in the future. It is an imagination exercise – or role play – as if we were all living already on planet Earth in 2030.*

*Thrive in Community Food Forests in 2030*

*The concepts of intersecting COMMUNITY, FOOD and FORESTS had taken off all over the world since 2020. The planet started to become a worldwide network of diverse community food forests (again) thanks to globally coordinated implementation efforts (Soccer World Cup style), which transitioned our agricultural system into edible landscapes, and thus achieved long-lasting positive impacts on the planet and our future.*

*How did we know in 2020 that a Worldwide Network of Community Food Forests was possible? Because many individual projects were already sprouting back then, and we featured a handful in this 30-minute Worldwide Community Food Forest Network video\* that we’ve pulled out from the history archives for you to enjoy.”*

**From Stacia Nordin:**

I’d not heard of NAN (Nutritious Agriculture Network) in the chat by @DorahMomanyi, had to look it up: <https://twitter.com/agriculturenan>

**From Stacia Nordin:**

There is extensive indigenous food diversity in some areas - Malawi has so many that are overlooked and under-utilised. Sustainable Nutrition Manual: Food, Water, Agriculture & Environment

free download:

<http://www.NeverEndingFood.org/Sustainable-Nutrition-Manual>

The manual utilises permaculture principles to achieve:

- Healthy Humans
- Healthy Environments
- Healthy Designs

It highlights 600 foods in Malawi for all the nutrition we need every day of the year.

**From Gina Kennedy:**

Here is a link to Neglected and Underutilized species: <http://www.nuscommunity.org/>

**From Stacia Nordin:**

Please everyone look at the link Gina just shared and find out in your countries how to put indigenous diversity into practice in your life and work.

**From Nicole Metz:**

<https://www.nwo.nl/en/research-and-results/cases/african-indigenous-foods.html>

Synthesis of research on indigenous foods/ traditional foods, which was done in recent years, funded by Dutch government via NWO-WOTRO. The findings may be relevant to build further on this in the context of resilience against covid effects.

**From Selena Ahmed:**

- "Eating with Intention during Uncertain Times" by Selena Ahmed + Noah ten Broek  
[http://waferx.montana.edu/documents/fact\\_sheets/eating%20with%20intention%20during%20uncertain%20times\\_accessible.pdf](http://waferx.montana.edu/documents/fact_sheets/eating%20with%20intention%20during%20uncertain%20times_accessible.pdf)
- WAFERx (Water Agriculture Food Energy Research Nexus) COVID19 Resources:  
[http://waferx.montana.edu/coronavirus\\_resources.html](http://waferx.montana.edu/coronavirus_resources.html)

**From Anna Herforth:**

- <http://www.fao.org/2019-ncov/q-and-a/en/>
- <https://maximotorero.com/2020/03/23/covid-19-and-food-supply-a-four-pronged-battle-plan-for-countries/>
- <https://nutritionconnect.org/covid-19>
- <https://www.thenutritionarchive.com/blog>
- <https://www.foodpolitics.com/2020/03/the-food-politics-of-coronavirus/>
- <https://foodtank.com/news/2020/03/how-will-coronavirus-affect-our-food-a-dispatch-from-mexico/>
- "Good Questions 10: Given Our Concern About Viruses, What Should be Done About the Absence of Immune Factors in Infant Formula." World Nutrition. 2020. 11 (1): 13-17.  
<https://worldnutritionjournal.org/index.php/wn/article/view/708/596> or DOI:  
<https://doi.org/10.26596/wn.20201113-17>

Relevant news articles:

- <https://www.theguardian.com/global-development/2020/mar/26/coronavirus-measures-could-cause-global-food-shortage-un-warns>
- <https://businessday.ng/features/article/ensuring-that-hunger-does-not-kill-more-people-than-covid-19-in-africa/>
- <https://www.bloomberg.com/news/articles/2020-03-24/countries-are-starting-to-hoard-food-threatening-global-trade>
- <https://www.nytimes.com/2020/03/15/business/coronavirus-food-shortages.html>
- <https://www.nytimes.com/2020/03/22/opinion/restaurants-coronavirus-food-aid.html>
- <https://www.nytimes.com/2020/03/25/dining/victory-gardens-coronavirus.html>
- <https://www.nytimes.com/2020/03/28/style/seed-panic-buying-coronavirus.html>
- <https://www.nytimes.com/2020/03/26/world/asia/coronavirus-refugees-camps-bangladesh.html>
- <https://www.nytimes.com/2020/03/30/opinion/coronavirus-worker-strike.html>
- <https://civileats.com/2020/03/19/the-fight-to-keep-farmers-markets-open-during-coronavirus/>
- <https://www.brookings.edu/blog/the-avenue/2020/03/16/for-millions-of-low-income-seniors-coronavirus-is-a-food-security-issue/>
- <https://www.cbpp.org/research/food-assistance/usda-states-must-act-swiftly-to-deliver-food-assistance-allowed-by-families>
- <https://www.uvm.edu/newsstories/news/gauging-pandemics-impact-food-insecurity>