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Sustainable Food Systems and Nutrition: Making Agriculture and Food Systems Nutrition-Sensitive

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Questions and Answers

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1. Dietary assessment in traditional food systems in Cambodia: they usually eat a lot of fish. Where has the data been collected to say that the people are most often eating like vegans?

In Burkina Faso, Benin and Madagascar, the diets of children under five are almost deficient in animal products and this is one of the reasons why iron, zinc and vitamin A deficiencies are so common. The same is true for women of childbearing age. In Cambodia, people do indeed frequently eat fish.

2. The conventional practice in most developing countries to ensure food security is known to have adverse environmental impacts ; and this is a major challenge of putting in place systematic and sustainable food systems. What is your opinion on this issue?

Wherever possible, agricultural practices that preserve ecosystems and the environment should be promoted because they take into consideration food, nutrition and environmental health. Agroecology and organic practices that create local employment should be promoted.

3. How can learning be implemented effectively and efficiently for interdependent stakeholders in the food system?

Organizing training sessions open to different stakeholders of the food system will promote dialogue and a better understanding of the needs of the actors. It is necessary to involve the public sector and private companies so that everyone becomes aware of their social responsibility and particularly in the nutrition and health sector.

4. What is the role of organic food production in nutrition and food systems?

Organic food production results in food products with lower levels of pesticides and chemical residues. These compounds are suspected of altering the functioning of the intestinal microbiota, promoting hormonal disruption and altering the metabolism of carbohydrates and fats. Chemical residues could be involved in the long-term development of diabetes. However, it is important to remember that organic products may contain more bacteriological contaminants and mycotoxins.

5. How to protect our fragile ecosystem? please elaborate a little if possible, using examples of your research

Some communities depend heavily on fragile ecosystems for food and nutrition. Becoming aware that the degradation of these environments would increase food insecurity in some territories is a first step.

To guarantee the vitality of ecosystems, the use of more environmentally friendly agricultural methods is essential (biological practices, agroecology) but a broader vision is needed. Pollution also comes from urban and industrial discharges into water, soil and air. It is therefore important to promote more sustainable lifestyles in a global way and all SDGs are linked. In a practical way, the creation of protected areas could be an alternative, but the health of an ecosystem also depends on what happens at a distance.



6. Can you share the articles about the nutrient intakes surveys carried out in Madagascar, Benin and Burkina Faso?

Yes indeed here are the links to seven papers

Nutritional value of six multi-ingredient sauces from Burkina Faso

https://www.sciencedirect.com/science/article/pii/S0889157508000720?casa_token=oTAFeGj7gylAAAAA:MoZAKiRwTLTqhxMZ-JCGz2Rb2BjjNAKIBZZzY7ywYh4LoVvLAh7FErjglxNgIXLNGiCvIbkuIQ

Home-processing of the dishes constituting the main sources of micronutrients in the diet of preschool children in rural Burkina Faso

https://www.tandfonline.com/doi/full/10.1080/09637480601143320?casa_token=NARUJkEMjPkAAAAA%3AtLZRg_60XjdH54RrlfMbyBqDuQCO6aBgbvpUMaYUQ5InyTWLIOK74xREElxz_CR8gPMdfwfKgo0

Recipes and nutritional value of dishes prepared from green-leafy vegetables in an urban district of Antananarivo (Madagascar)

https://www.tandfonline.com/doi/full/10.3109/09637480903563345?casa_token=tIPfq-1gLKoAAAAA%3AlePhlj67y9aU2BDSbd6uSufEa3lCgScMdahte4-ZSjkl0ZAxJqMeq7SEzIWdtT7AyGuB62ogeAg

Improvement of the in vitro Digestible Iron and Zinc Content of Okra (Hibiscus esculentus L.) Sauce Widely Consumed in Sahelian Africa

https://onlinelibrary.wiley.com/doi/full/10.1111/j.1750-3841.2007.00280.x?casa_token=GAaD2Ai32DUAAAAA%3AgTnyge5n5n5cjs9Bo0pvRkqgYfm9jkPwSA6yhnBo3VkYZBrSTFOpNNPVTLaNZok_xkWjm5b_R7l1iA

Traditional recipes of millet-, sorghum- and maize-based dishes and related sauces frequently consumed by young children in Burkina Faso and Benin

https://www.researchgate.net/profile/Christele_Icard_Verniere/publication/286078782_Traditionnal_recipes_of_millet_sorghum_and_maize-based_dishes_and_related_sauces_frequently_consumed_by_young_children_in_Burkina_Faso_and_Benin_Recettes_locales_des_plats_a_base_de_mil_sorgho_ou_mais/links/56cf0ec408ae059e3758e97a.pdf

Contribution of plant-based sauces to the vitamin A intake of young children in Benin

https://www.sciencedirect.com/science/article/pii/S0308814611013628?casa_token=MFAXIP9D1nEAAAAA:WnaYZP3UuAK8mo416US8DpLuOXzK8g3MhqfZxXlBv99lChCfgoHsVUzQIEt6lgy1Uz1gt6qEZg

Effect of a multi-step preparation of amaranth and palm nut sauces on their carotenoid content and retinol activity equivalent values

https://ifst.onlinelibrary.wiley.com/doi/full/10.1111/j.1365-2621.2012.03178.x?casa_token=sWg_2SZfRZAAAAA%3A49uzl7bML9ud4TuMoUTWaHiZMIZxWzX9lw7is2Wzzvigms_fv3IsP2MemnBrEvRka488anWxyKdtkg

7. The way to deliver nutrients to the overall population is to provide adequate, affordable, safe and nutritious food and fortification may be an interim solution only. Here it looks like that you argue that this is one important solution. What are your arguments instead of providing foods - following the human right to adequate food - to fortify?



No, fortification is not the only solution to make the food system more sensitive to nutrition. In conclusion of this webinar, it is said that the solutions to be implemented must be chosen according to the level of urgency and severity of the nutritional problems observed. It is important to ask whether there is time for development or whether there is a need for quick solutions to deal with nutrition emergencies?

In my opinion, where possible, it is preferable to promote the strengthening of traditional and local food systems by diversifying diets so that they are healthier while preserving people's eating habits. This strategy has the advantage of creating local employment and income by generating fewer negative externalities such as pollution (transporting food over long distances and food miles, loss of freshness) and the packaging accumulation.

8. Post-harvest technology has a huge role in maintaining the nutrition status of agricultural produce. I feel the importance of the post-harvest technology is less emphasized during the presentation. Why is post-harvest technology not given importance?

This topic was addressed in a previous Webinar organized by FAO on "Food post-harvest losses" on 25 March 2020. Yes, indeed post-harvest losses are important in improving food security and nutrition. The diffusion of simple technologies to stabilize food and keep it edible over periods longer than peak harvests is important. Drying ensures food safety and consumption over a large period. Fermentation is also an important unit operation that can increase the shelf life of food by lowering pH without the use of cold chains.

9. You said that the shelf-life should be shorten - but this is only addressing the content of vitamins but not a food safety issue, isn't it? Please clarify what you mean exactly in order to avoid that valuable food is wasted as people think that it is unsafe to eat.

Reducing the shelf life of products is recommended to ensure nutritional claims for vitamins and essential fatty acids. We have not encountered any problems at all with regard to food safety.

10. The NUTRIScore and NOVA labels look worryingly similar although they address very different issues (processing and nutrient intake). What is the use of labels if they lead to further confusion for the consumer?

The NUTRIScore and NOVA logos have notable differences: NUTRIScore does not take into consideration the degree of product formulation (number of ingredients, additives) and transformation (matrix effect). It is based solely on the caloric density of foods, their content of saturated fats, salt and percentage of fruits and vegetables. It is possible to indicate it on the front of the packaging; on the contrary, NOVA score is currently only used in research. These scores feed the public debate on the nutritional quality of foods to help consumers identifying healthy foods in the food supply. NUTRIScore contributes to greater transparency about what we eat which, in my opinion, limits consumer confusion rather than increasing it.



11. What is the position stand on use of the tropical oil-red palm oil, globally? especially quoting the use in the production of Nutella- widely consumed by children.

Red palm oil is interesting in areas where vitamin A deficiency persists because it is very rich in carotenoids (provitamin A) which are very bioavailable in the human body. In this situation, it helps to correct vitamin A deficiency.

However, palm oil should be eaten in moderation like other foods rich in saturated fatty acids (coconut oil, chocolate, charcuterie, cheese...) as they promote overweight, obesity and associated diseases.

12. What sorts of actions can improve nutrition sensitivity of food systems within indigenous food systems?

Food fortification, food labelling are less applicable to indigenous food settings. It is important to continue research on indigenous foods to describe the nutritional value of traditional ingredients and dishes. We still have to understand how they contribute to meeting nutritional needs. The composition tables for these foods need to be consolidated. Village nutrition education programmes can raise awareness of the nutritional value of these foods and encourage people to diversify their diets to reduce micronutrient deficiencies. It is also possible to integrate these traditional foods in national nutrition policies.

13. Why don't you include SDG 12 in the nutrition issue, as responsible production and consumption includes responsible food-related choices, plus 12.3 covers food loss and waste related issues.

It's true indeed, SDG 12 "Sustainable consumption and production patterns" is also linked for nutrition.

14. Which is your opinion on the fact that not all member states in Europe consider Nutriscore not a needed tool for improving FP formulation?

Indeed, there is still reluctance to indicate NUTRISCORE to certain food products in some European countries and still in France. Producers of rich, greedy or even ultra-processed foods are afraid of seeing their food products disqualified from consumers. However, this labelling will help the consumer to position these rich foods in a healthy and balanced diet during the week with reasonable portions and frequency of consumption. The aim is to provide reference points that are comprehensible to all consumers so that they can better control their diet. The adoption of this type of logo is a courageous step to assume social responsibility.

15. Nutrition data always lacks in the planning phase of the smallholder farmers and so the district teams failing to map out areas which grow nutritious foods, Don't you think this has increased Malnutrition cases in Africa even when it's the food basket for the Continent. How do we create sustainable nutrition data systems for better food and nutrition in rural and peri-urban areas?



Indeed, there is a lack of nutritional data. All stakeholders must contribute to a better dissemination of data and the use of common indicators to be able to monitor changes over time and see if situations are improving or deteriorating.

This requires continued investment of time and resources in agricultural, food and nutrition diagnostics. On the other hand, there are nevertheless similarities between geographically close countries in Africa and Asia. For example, micronutrient deficiencies are always present when diets are too monotonous and vegetarian in rural areas. Some solutions can be scaled up to the sub-regional level.

16. Fortification seems to be a good thing but the health concerns are worrisome. Just imagine you buy this 'fortified food' but when in the real sense you are paying to get obese, cancer, among others. Secondly, are there any measures to regulate uncouth opportunistic businessmen from selling their fake fortified products? How can we tell?

Companies generally fortify flours, sugar, oils, milk. It is important to place these foods in a balanced diet with the recommended frequencies and portions. Fortification must be controlled by the producer himself but also by distributors and control agencies such as the French fraud control agency. Indeed, nutritional claims must be true and there may be a risk of using this strategy to increase the sales in a competitive market without really taking into account the nutritional impact of these foods.

17. Which is the most effective and readily available tool in poor countries to assess malnutrition in women and children at large?

To assess the individual malnutrition, anthropometric measures of height/length and weight and mid-upper arm circumference and comparison with reference according to age will help in detecting stunting, underweight and wasting.

18. What is the role of various local actors (Government, local NGOs, traditional leaders, chiefs,) to promote the traditional food system?

We are observing trends in the modernization of eating habits which are taking place more or less rapidly depending on the country (nutritional transition). These changes are leading consumers to abandon traditional foods and consume more and more processed or even highly processed foods. These diets can in the long term promote overweight, obesity and chronic diseases. This trend is supported by advertising and the sales force of companies (distribution and marketing systems).

It is therefore important to value traditional recipes for their barrier effect on chronic diseases while encouraging dietary diversity to reduce micronutrient deficiencies. Governments can support the local food system by integrating traditional recipes into nutrition policies and national recommendations. NGOs can also base their nutrition programs on these foods by ensuring that dishes are sufficiently rich in micronutrients. Finally, restaurant chefs can also revise these recipes to promote them.

19. How can we limit the marketing of ultra-processed diet for children?



Advertising encouraging children to consume highly processed foods should not be allowed, in particular advertising using cartoons for the youngest children. Public policies should prohibit the distribution of such foods in children's environments such as schools, playgrounds, etc.

Covid-19

20. In context of Covid-19 pandemic, please can I know between organic agriculture and conventional agriculture which can contribute efficiently to food security system in market gardening production for example?

COVID-19 pandemic has exposed the fragilities of the food systems, in particular in terms of availability, access and affordability of perishable foods such as fruits and vegetables. Disruptions appear to be more limited in contexts where farmers are enabled to directly connect with market outlets or with consumers through short value chains. This obviously is very context specific. Usually the organic market is the one that emphasizes the proximity between the producers and the consumers.

Some degree of re-localisation of agriculture, with increased production and consumption of local and seasonal foods is acknowledged as an important dimension of resilience and livelihoods. Short food chains and social protection for food access are making the headlines. This is all emerging as part of the learning from the extraordinary social and economic laboratory provided by the COVID-19 response.

Useful reading: <https://www.acteon-environment.eu/en/actualites/covid19-accelerating-the-move-to-sustainable-diets/>

21. In Covid-19 scenario how we can we feed the population and maintain the nutrition?

22. What do you think about effect of the Covid-19 on developing country food and nutrition?

23. What could be your advice to countries for measures to be taken after Covid-19 to ensure food and nutrition security?

As mentioned in my presentation, diets is a big contributor to nutrition (but not the only one). Unhealthy diets are also a primary cause of poor management of Non-Communicable Diseases and resulting adverse health outcomes. Evidence shows that individuals with underlying diet-related NCDs (i.e. diabetes, hypertension, heart disease) have a higher risk of severity of health impact and mortality from infectious diseases, and early reports suggest that this is also true of exposure to COVID-19.

Especially for the most nutritionally vulnerable people, such as young children, school children, adolescents and women of reproductive age, the quality and diversity of the diets are the most important aspects. According to UNICEF, only 1/3 of children between 6-23 months has access to a minimum diversity diets (i.e. consuming at least 5/8 food groups in the previous 24 hours). The majority of children consume grains, roots and tubers with much more limited access to animal source foods.



While there is global availability of staples, it is less clear to what extent the COVID-19 pandemic is affecting the availability, access and affordability of foods that contribute to healthy diets such as fruits and vegetables, animal source foods and pulses. There is a concern that the current situation could affect further the diet diversity and that this can have implications for the nutrition status of the population.

In medium and high-income countries, for examples, lock-down measures and online food grocery may result in an increased consumption of highly process foods that are cheaper and have a long shelf life but are often high in salt, sugar and fats. In low-income countries, especially those that are net food importers, there is a concern in terms of availability and access to a diversified range of foods, which may affect the already limited dietary choices of children and other nutritionally vulnerable people.

Useful readings:

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31067-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31067-9/fulltext)
<https://globalnutritionreport.org/reports/2020-global-nutrition-report/>

24. What could be the possible measures to mitigate malnutrition post Covid-19 in children?

25. At a country / province level what are some of the key policy parameters to ensure nutrition levels among children and women do not slip further in the context of Covid-19 pandemic - during lockdown and also during recovery stage post- Covid-19? What steps should the Government focus on?

UNICEF and WFP have produced policy briefs to highlight mitigation measures to address nutrition risk factors for children in the context of COVID-19.

From a food systems perspective, FAO emphasizes the importance of keeping the food and livestock value chains alive to ensure continued availability of supply. However, FAO also recognizes that the nutritional needs of children and women should be prioritized given their higher risk of becoming malnourished in food insecure contexts. Generalized food subsidies (e.g. rice and maize) do not necessarily help those with the greatest nutritional needs and may jeopardize the availability, access and affordability of nutritious foods such as fruits and vegetables and pulses.

The joint statement issued by the UN Agencies for Asia and Pacific is a great example on how a coordinated response should be triggered to address nutrition in the context of COVID-19 pandemic, especially focusing on those that are nutritionally vulnerable.

Useful readings:

<https://www.unicef.org/documents/supporting-childrens-nutrition-during-covid-19-pandemic>
<https://www.unscn.org/en/news-events/recent-news?idnews=2039>
<https://www.unicef.org/eap/joint-statement-nutrition-context-covid-19-pandemic-asia-and-pacific>

26. How did the Covid-19 affect the food production and supply to the developing countries?



COVID-19 pandemic has affected the food systems from the point of production to the value chains to the food environment where consumers engage to make decisions about acquiring, preparing and consuming foods.

We should highlight the risks posed to the availability, access and affordability of fresh foods. Vegetables are particularly sensitive to the demand and farmers might be less willing to take the risk with implications for the supply in the short-medium term.

Below a broad overview on how the measures put in place to contain COVID-19 pandemic are affecting different parts of the food systems:

- Food supply chains disrupted by restrictions on international trade and movement of foods and people (within and outside the country).
- Food environment affected by the closure of traditional and informal markets (that often serve the poorest segments of the population with fresh foods) and closure of all types of catering services. The closure of schools has resulted in no/limited access to school meals jeopardizing the nutrition status of almost 350 million children depending on it.
- Consumers' behaviours affected by lock-down measures and reduced purchasing power due to loss of incomes, jobs and remittances. It is unclear how the increased exposure to online ordering of foods, home-delivery, take-away and supermarkets is affecting consumers' behaviours.

Useful readings:

FAO policy briefs available on: <http://www.fao.org/2019-ncov/en/>

Article from Vietnam on food environment: <https://www.iied.org/impact-covid-19-lockdown-diets-hanois-urban-poor>

27. How can developing countries sustain food production during this period of lockdown as a result of Covid-19 pandemic?

To sustain food production, developing countries can ensure that food supply chains function efficiently. In this regard, it is important to minimize risks to agricultural inputs (fertilizers, seeds, machinery and labour, among others). The actors along the supply chain can coordinate their interventions to ensure that the food production is stable and there is limited market uncertainty. Countries can adopt various best practices to keep input markets flowing, such as by adopting sanitary measures to resume production, declaring agricultural inputs as essential goods, reduce income uncertainty at the farm level, maintain government support for investments in agricultural inputs. To get a deeper view on the impact on agricultural inputs during COVID-19, readers can access the following FAO resource: <http://www.fao.org/3/ca8979en/CA8979EN.pdf>.

In addition it is important to keep logistics flowing in the supply chains which can include all activities that enable the flow of agriculture inputs, outputs, and agriculture-related services, such as transportation, warehousing, procurement, packaging and inventory management. To get a deeper perspective on what countries can do to maintain efficient



flow of logistics, readers can access the following FAO resource:
<http://www.fao.org/3/ca8466en/CA8466EN.pdf>

28. What is your suggestion for policy makers on post Covid-19 best practices for nutrition-sensitive agriculture?

29. Looking at the demography of Africa including Nigeria, I think food Covid-19 impact will be huge, of which food crises and shortages including food insecurity will be of high percentage. Is there any policy in FAO, UN or affiliated partners towards this angle?

30. What could be your advice to countries for measures to be taken after Covid-19 to ensure food and nutrition security?

31. Can you give some tips how to mainstream nutrition or use nutrition as a crosscutting tool during this pandemic period?

In tough times such as this, cooperation amongst countries on issues of societal importance can play a significant role in better diagnosing the adverse effects of COVID-19 pandemic on nutritionally vulnerable groups as well as in identifying potential solutions to respond to the crisis. The cooperation may take the shape of regional dialogues, such as through African Union (AU) and other regional bodies in the case of Africa. FAO has strongly contributed to the priorities of AU in the past and continues to provide technical expertise on food and nutrition.

FAO, given its mandate, highlights good practices from around the world on actions taken by countries along the food systems to improve nutrition. These good practices can be serve as beneficial tips and advice for other countries as they begin to support food security and nutrition of their populations through actions related to nutrition-sensitive agriculture, home-grown school feeding, social protection, food loss and waste, etc. An analysis of good practices on nutrition can be accessed by readers for further information through the following link: <http://www.fao.org/2019-ncov/analysis/en/>.

FAO provides an integrated package of guidance materials that can be used by policy makers and development practitioners to mainstream nutrition in the design, implementation, monitoring and evaluation nutrition-sensitive food and agriculture policies and programmes. This training package which is composed of four elements can be accessed here for more information: <http://www.fao.org/nutrition/policies-programmes/toolkit>.

32. On the point of innovations by food retailers in the present context of Covid-19 pandemic, have we considered the realities that have been highlighted with respect to adoption of lean supply chain and JIT inventories that supermarkets had adopted across the world?

This is a very interesting point and I have added the links to some background information. Indeed, it should be noted how quickly retailers have adapted to the current challenges and how important it is for Governments to ensure that this flexibility is maintained (obviously while ensuring consumers' protection).

Since the outbreak of the pandemic, many food retailers including supermarkets have adapted challenges by staying up to date on local conditions and providing customers



updated opening hours and sharing information about precautions they are taking through different digital communication channels. On the same context, e-commerce channels facilitate the trading of accumulated produce to help boost sales. For example, the Chinese e-commerce company Alibaba set up a special fund to help farmers find markets for unsold agricultural products and is building a “green channel” dedicated to fresh agricultural products. (<http://www.fao.org/documents/card/en/c/ca8388en>)

As the first step of the adaption, on the government level, governments have to carry out rapid national and sub-national assessment of food stocks and yield and plan with forecast and simulations, also allow movement of seasonal worker and transport operators across domestic and international borders. (<http://www.fao.org/documents/card/en/c/ca8466en>)

Last but not least, to have effective communication on lean food supply chain and its adaption, it is critical that national crisis committee engages the private sector, through a multi-stakeholder advisory committee that includes representatives of all actors in the food supply chain.

33. How is Covid-19 affecting fish workers?

FAO has produced a Policy Brief on how COVID-19 is affecting the fisheries and aquaculture food systems.

Useful reading: [How is COVID-19 affecting the fisheries and aquaculture food systems](#)

34. How can we carry out case identification of SAM during and post- Covid-19 taking into consideration social/physical distancing?

UNICEF has already adapted their guidance notes for early detection of SAM cases. This guidance provides recommendations on ways to find practical innovative approaches for the collection, analysis and management of nutrition data and information without causing any harm.

In addition, UNICEF, Global Nutrition Cluster and GTAM (Global Technical Assistance Mechanism) developed a brief to provide information specific to services and programmes for the management of child wasting in the context of COVID-19, and it contains information that is not already available elsewhere.

Useful readings:

<https://www.unicef.org/documents/nutrition-information-management-surveillance-and-monitoring-context-covid-19>

https://mcusercontent.com/fb1d9aabd6c823bef179830e9/files/e71f80cd-697f-4b00-b6f5-88f310cf3fd2/Wasting_COVID19_Brief_1_27_March_v1_for_distribution.pdf

35. Which data base/data source are you using to make statements in regard to Covid-19 impact on food systems and dietary behaviour?

36. What do we know about behaviour and dietary shift?



So far, we have only received anecdotal responses. We have therefore started an online survey looking into details in purchasing and dietary behaviour changes: <https://www.soscisurvey.de/foodcovid-19/>

FAO has produced a series of policy briefs based on different types of analyses.

For more information, you can access the dedicated FAO webpage on COVID-19

Please also find reference to FAO's Big Data tool on food chains and food security under the COVID-19 pandemic <https://datalab.review.fao.org/> with real time information to build analyses and solutions.

Currently there is no data on the actual impact of COVID-19 on dietary behavioural changes.

UNSN prepared a 5-minute short questionnaire to understand the changes people are making in their everyday life due to the impact of COVID-19. The results will inform UNSCN publications which examine the consequences of COVID-19 on people's food environments and look to help people adapt as well as possible. one questionnaire

This is a topic of great interest for the FAO Nutrition and Food System Division and we would like to hear more about the results from such online surveys.

UNSCN questionnaire: <https://www.unscn.org/en/news-events/recent-news?idnews=2045>

37. What are the best options to make hygiene and sanitation of groceries at household level during Covid-19?

As COVID-19 is unprecedented, it is true that we face many different information on our safety every day that guide us to different directions. FAO supports measures that ensure the continuity of supply chains so that people have access to safe and nutritious food during the pandemic. FAO is working closely with WHO to provide targeted guidance to all those in the food chain to support their efforts to maintain the safety of the food supply during this crisis. FAO is providing policy guidance for agricultural and food systems which highlight food safety as one of the important aspects to be considered.

In terms of food safety, according to FAO Novel Coronavirus (COVID-19) information archive, it is recommended to follow the measures put in place locally at the market or supermarket and maintain physical distance from other people when selecting food items and in line. Keep hands clean and do not shop if you have any symptoms.

Handling food packaging is an unlikely cause of COVID-19. Under experimental conditions, the virus can survive on a variety of surfaces such as plastic or cardboard used in packaging, but it is unlikely that this type of exposure would be sufficient to make a person sick. Always wash your hands after unpacking food. Additional precautions include wiping down and disinfecting surfaces. Avoid touching your eyes, nose or mouth when handling food and food packages and wash reusable shopping bags regularly. For more information and FAO recommendation, please visit <http://www.fao.org/2019-ncov/en/>

<http://www.fao.org/2019-ncov/q-and-a/food-safety/en/>



38. In the context of Covid-19 pandemic when food systems seem to have come to a standstill or collapsed, what immediate measures should the Government do to support small holder farmers? Is there any country examples where this has been done to restore food system balance?

Responses to contain COVID-19 pandemic have been varied across (and in many instances) within countries. Governments as a rule have classified the agricultural services as essential services to mitigate against food systems disruptions, while adhering to recommendations by WHO/Ministries of Health. But in import-dependent countries, food supply may be threatened by trade restrictions despite the global availability of commodities, especially staples. On the other hand, trade policies often coupled with generalized food incentives may prioritize staple foods (e.g. rice and maize) at the expenses of other high-value commodities such as vegetables, fruits, pulses, animal-source foods. There is a real risk that the COVID-19 pandemic further displaces the availability, accessibility and affordability of nutritious foods with implications on the diversity and quality of local diets, which may put at increased risk of malnutrition already vulnerable populations. While it is important that import-dependent countries maintain borders open to facilitate trade in food and agricultural inputs, measures need to be set in place to safeguard the production, minimal processing and domestic distribution of safe and diversified foods that contribute to healthy diets.

Short food chains, including urban and peri-urban agriculture, should be included among the essential services and be supported to overcome logistical challenges. For example, informal and traditional markets need to remain open (while maintaining safety and health recommendations) given their importance for both small-scale farmers as well as poorest consumers. Countries that safe-guard their short food supply chains are protecting the availability of and access to fresh produce as a key source of income for small producers as well as source of diet diversity for consumers. Promising practices are emerging in the food environment and are mostly pushed by retailers and actors in the food catering that had to react very quickly. Closed restaurants, for example, had to reorient their activities towards home-delivery and their suppliers had to shift to direct supply to consumers. In many high-income countries, supermarkets have been encouraged to purchase unsold food production to support farmers.

Useful readings:

FAO Policy briefs:

[Ample supplies to help shield food markets from the COVID-19 crisis;](#)

[Agri-food markets and trade policy in the time of COVID-19;](#)

[COVID-19 and the risk to food supply chains: How to respond?;](#)

[COVID-19 and smallholder producers' access to markets](#)

As of May 8, 2020, a total of 171 countries have planned, introduced or adapted social protection measures in response to COVID-19 but only three countries have mentioned an explicit link to local producers: Costa Rica, Saint Lucia and Saint Vincent and the



Grenadines. In Costa Rica, for example, the food baskets for school children include perishable and fresh foods sourced from smallholders. In Saint Lucia, the National Meals Program by the Ministry of Agriculture to feed 5,000 underprivileged persons uses produce from local farmers. In Saint Vincent and the Grenadines the provision of food transfers has been directly linked to increased incentives to local producers. Other countries have set measures that may facilitate the link with the local markets. Students in Ireland are being sent home packages with fresh foods, including bread, eggs, fruit, and yogurt. On March 29, the Italian National Civil Protection transferred €400 million (US\$ 440 million) to 7,904 municipalities to purchase food vouchers and/or basic food necessities based on population and income criteria. Mayors are free to decide how to purchase products and how to select beneficiaries. In Nepal, food assistance for informal sector labourers is organized through ward committees at local level, funded by local and provincial level governments with top-ups from federal as required. The Government of Libya has adopted a regulation (to be revised every 3 months) controlling the prices of 16 food items such as fruits, vegetables and meat, which may protect the consumers but have negative implications for the producers and suppliers. Taiwan provided coupons to be used in night markets, shops and restaurants. In Turkey, appropriate housing and transportation conditions as well as hygiene and protective equipment have been provided to seasonal agricultural workers.

The following World Bank resource can be accessed to get more information on social protection response:

<http://documents.worldbank.org/curated/en/448321588971503966/pdf/Social-Protection-and-Jobs-Responses-to-COVID-19-A-Real-Time-Review-of-Country-Measures-May-8-2020.pdf>

39. Is there a way to determine at-most risk food insecure population groups or locations in any setting, due to Covid-19, using a base layer traditional data on food and nutrition status, agriculture (production data), population density, poverty map and all joined up with spatial data. This can provide a real-time map/dashboard for monitoring food insecurity and at-risk location and population groups for effective intervention targeting. Is this idea workable? Are there tools for this purpose?

40. Do you think traditional M&E tool no longer effective to measure the outcome of Covid-19?

M As a premise, real time maps / dashboards should be developed with a clear understanding on the different types of data and data sources that can feasibly populate them.

The COVID-19 pandemic poses additional demands to coordinate information systems, building on the wide range of internationally available tools (e.g. IPC analysis including Acute Food Insecurity, Acute Malnutrition and Chronic Food Insecurity; RIMA - Resilience Index Measurement Analysis; VAM - Vulnerability Assessment Mapping

FAO is developing rapid food systems assessment combining different tools to assess the level of disruptions in food supply and the risks in terms of food insecurity. In the



Nutrition and Food Systems Division we are advocating to ensure that the risks in terms of dietary changes are also taken into account in order to predict the possible impact on the nutrition status of the most vulnerable people.

The response to COVID-19 pandemic is affecting different parts of the food systems with implications in terms of availability, access, affordability and consumption of different foods. This in turns will affect different segments of the population in terms of food security and increase risks of malnutrition for nutritionally vulnerable people. Therefore, M&E tools that only look at one aspect of the food systems, may not be adequate to provide an understanding of when, where and how COVID-19 pandemic is going to have the worst outcomes. As development partners work with Governments to coordinate the response, the need for real time M&E tools becomes even more urgent.

41. In Africa, the average farmer is said to be 60 years old. That is unsustainable. It means we need to have more youthful people getting into agriculture. with Covid-19 its obvious the most affected by the virus are the aged. in that case how do we shift our youth to agriculture and farming?

In many developing countries, young people have a problem to start their business or find a job on agricultural sector. Existing market is already dominated by conventional stakeholders and often youth are not included in coordination, collaboration, capacity development mechanisms, policies, legal and regulatory frameworks of agricultural sector. Additionally young people are often unable to finance needs to ensure that their farming or processing activities can be launched or expanded, while often not benefitting from opportunities in the agricultural supply provided by large-scale investments. To empower youth, young people need to be included in financial investment strategies, not as a silo dimension but need to be targeted in all sustainable development projects.

On the same social context, young women in rural area often do not have an active role in the policies which affect them, as in most rural communities decision-making is the role of older men. It is often part of the culture that women have to help with domestic chores and their freedom of movement is restricted, which gives them less opportunities to attend learning activities and participate in other activities or access to markets and this restriction puts them in unequal situation in terms of tenure right and as consequences, this leads to lack of participation on agricultural sector. Therefore, it is important to strengthen the participation of youth and women in the policy dialogue and coordination mechanisms on the country level.

Source:

IFAD Action Plan: Rural Youth 2019-2021 - Empowering rural young women and men to shape the rural economies of tomorrow. Rome: International Fund for Agricultural Development. Available at:

https://www.ifad.org/documents/38711624/41190839/Action_Youth_web.pdf/f09a8d5c-36eb-f915-8b36-b521b1414b08

.FAO (2019a) Empowering youth to engage in responsible investment in agriculture and food systems: challenges, opportunities and lessons learned from six African countries (Côte d'Ivoire, Malawi,



Mozambique, Namibia, South Africa and Uganda). Rome: Food and Agriculture Organization of the United Nations. Available at: <http://www.fao.org/3/ca2877en/ca2877en.pdf>.

42. What types of jobs in the case of Covid-19 could be created for young people for their sustainable integration into the private sector?

Not only on the context of COVID-19 pandemic, to find innovation on youth employment on food and agricultural sector, active adaptation of new technologies and advancing new opportunities in emerging value chains are needed. For sure, policy and legal framework and coordination are essential to support this.

Young people do not consider jobs in agriculture and food systems as employment opportunities. FAO has been dealing with this challenge for a long time and COVID-19 has just further unveiled the underlying inequalities, which underpin the food systems. For example, COVID-19 has revealed the dependency of food production in high income countries on migrants coming for seasonal labour. High-value chain commodities that have high-intensity labour demand, such as fruits and vegetables, have been the hardest hit. Even in countries like Germany and Italy where agriculture vouchers were put forward as a temporary measure to get the required work force, the response was extremely limited. Countries like Spain and Portugal responded by providing temporary permissions to illegal workers unveiling the extent agriculture depends on them. FAO is also working on a framework to end child labour in agriculture and food systems, and is seeking inputs to strengthen its content.

For those interested, kindly contribute to this important initiative here:

<http://www.fao.org/fsnforum/activities/discussions/addressing-child-labour-agriculture>

43. What is happening in the current pandemic in regard to perishable food markets, exports/ imports across Sub Saharan Africa and Asian regions?

On April 16, the ASEAN Ministers of Agriculture and Forestry in Response to The Outbreak of The Coronavirus Disease (Covid-19) to Ensure Food Security, Food Safety and Nutrition in ASEAN

<https://asean.org/statement-asean-ministers-agriculture-forestry-response-outbreak-coronavirus-disease-covid-19-ensure-food-security-food-safety-nutrition-asean/>.

On April 16, the Ministers of Agriculture issued a statement for Africa to minimize food system disruptions and ensuring food security and nutrition for all their citizens—especially the poorest and most vulnerable—during and after the COVID-19 pandemic.

<https://au.int/en/documents/20200427/declaration-food-security-and-nutrition-during-covid-19-pandemic>

In both statements, the food and agriculture services are defined as essential services to minimize disruptions in the food systems and ensure food security. In their statement, the ministers also urged governments to “recognize that all types of food



systems—modern, traditional (open markets, small stores) and informal (street vendors)—play critical roles in serving different markets.” The actual application of the recommendations, however, varies across (and in many instances) within countries with significant implications for the availability, accessibility and affordability of foods, in particular perishable foods such as fruits and vegetables and animal source foods.

Below some points to consider when looking into the potential impact of the COVID-19 pandemic on the trade of commodities and, in particular, on the availability, access and affordability of perishable foods in Sub-Saharan Africa and Asia:

1. Contrary to the food crises in 2007-2008, there is **no global supply shortage in 2020**. However, **export restrictions** by major suppliers (e.g. Russia, Vietnam and Thailand) will hit net-importers countries - especially Sub-Saharan African countries - the hardest. **Border closures** are already affecting regional movements of agricultural commodities causing processing delays of foods and market instability (e.g. in Eastern African countries). High-value commodities, such as fruit, fish and meat are those most at risk of being disrupted given their perishable nature. All policy recommendations point to the importance of removing existing or threatened trade restrictions to allow the free movement of agricultural commodities and inputs at global, regional, and national levels with the overall aim of stabilizing food markets and reducing price volatility. The Agricultural Market Information System (AMIS) and the Covid-19 food policy tracker among many other resources can help to identify areas of concern and promote an integrated response.
2. **Informal and small and medium size businesses** are the backbone of the food systems in low income countries, providing production and processing, marketing and food services. Their inability to operate will affect food access, particularly in urban and peri-urban areas. In Asia, schools, social protection programs, businesses are adapting quickly to supply different types of foods safely - utilizing electronic vouchers and other forms of contact-free payment, developing new food delivery options for school feeding programs and for servicing essential workers. The example of China with the “green channels” shows how Government enabling measures can help firms to stay in business and continue to employ workers while at the same time ensuring the provision of a diversified range of foods, including fresh foods. Relevant innovations include technical assistance to SMEs to help them adjust products and models. In a recent article, the World Bank also encourages to look beyond the provision of staple foods to ensure that a different range of foods continue to be available and accessible to the population, in particular those that are at high-risk of malnutrition. Recognizing that fruits and vegetables, remain prohibitively expensive in many countries, public support should put in place measures that protect the diet diversity of the people. Learning from Chile and Mexico, 47 countries are already experimenting with different approaches from urging



Governments to subsidize healthier foods (not only focus on cereals and sugar) to mandating adequate labelling on processed foods. Useful reading: <https://blogs.worldbank.org/voices/how-nutrition-can-protect-peoples-health-during-covid-19>

3. **The global loss of jobs and incomes** is already reducing agriculture-related demand and threatening gains made on poverty and nutrition in South Asia and sub-Saharan Africa over the past decade. Labor shortages—due to border closures, movement restrictions, and worker illness—will be problematic, particularly for high-value, labour-intensive commodities like fruits and vegetables. Delayed planting for rain fed crops will result in certain production declines for the coming season, prolonging and deepening the impact of the pandemic. In Sub-Saharan countries this goes on top of pre-existing vulnerabilities such as an unprecedented locust outbreak, climate shocks and livelihood disruptions due to conflicts and displacement of people. The poorest – with little or no access to social protection programmes (particularly in Sub-Saharan Africa) – will be the hardest hit by the global economic recession. In addition, the loss or significant reduction of remissions from immigrants employed in Europe, North America and the Emirates, will affect the poorest households that greatly depend on them as part of their income. **The contraction of food purchasing power will affect the type and quantity of food products demanded by consumers everywhere** including in Sub-Saharan Africa, where 60% of the food is purchased from traditional and modern retail outlets in both rural and urban areas (<https://www.brookings.edu/blog/africa-in-focus/2020/05/14/protecting-food-security-in-africa-during-covid-19/>).

Perishable foods like vegetables are very sensitive to demand changes and this will pause an additional challenge to the supply of a diversified range of foods in the coming months.

Specific information on Asia and the Pacific are available in the dedicated website FAO RAP. <http://www.fao.org/asiapacific/resources/2019-ncov-asiapacific/en/>

FAO RAP & IRRI. Webinar: The future of food systems in Southeast Asia post COVID-19. **Watch the seminar here:** <https://youtu.be/-UIEvXXJy7o>

Joint UN Statement on nutrition in the context of the COVID-19 pandemic in Asia and the Pacific. <http://www.fao.org/3/ca8820en/ca8820en.pdf>

USDA Foreign Agricultural Service. Data & Analysis (by country within region). East Asia & the Pacific: <https://www.fas.usda.gov/regions/east-asia-and-pacific>; South & Central Asia: <https://www.fas.usda.gov/regions/south-and-central-asia>.

Additional information can be obtained from Ms. Rachele Oriente (Rachele.Oriente@fao.org), Knowledge and Information Management Officer.

Beyond Covid-19



44. Are sustainable food systems the solution of malnutrition and climate change issues?

45. Are sustainable food systems the solution of malnutrition? What about the effects of climate change on food systems and malnutrition?

46. In the systematic vision of food system and nutrition, the issues of environment or biodiversity/ecosystem services are usually not given due attention; and this has got its own implication on ensuring food and nutrition securities on a sustainable basis. Your reflection please on how complementarities can be created among these issues...

Sustainable food systems are one of the solution to address both imbalances when it comes to the delivery of healthy diets as well as producing and consuming the foods in ways that do not affect the planet.

FAO together with WHO and a group of experts has come up with principles for sustainable healthy diets that look at all four dimensions. See the Guiding Principles <http://www.fao.org/documents/card/en/c/ca6640en/>

On the other hand, climate change exacerbates food insecurity and malnutrition. Research has shown that the combination of higher concentrations of carbon dioxide (CO₂) in the atmosphere and related higher temperatures depletes protein and nutrient content (including essential micronutrients such as iron and zinc) in plants. A warming climate thus poses a direct nutritional threat to the billions of people who rely on staple food crops for much of their diet. Increased availability and access to conventionally bred bio-fortified crops that are tailored to specific country climate conditions, for example, can be seen as an example of nutrition and climate smart innovation in resilience building strategies.

Reduction of food loss and waste can contribute to the mitigation of greenhouse gas emission on both the supply and demand sides.

47. Food security definition: why did you not include aspect of affordability and physical access as part of a sustainable food environment as part of a sustainable food system?

The affordability and physical access is part of the food environment and constitutes part of a comprehensive approach towards the establishment of sustainable food systems

48. How do you distinguish agriculture and food systems in your discussion? Especially when it comes to how to make them more nutrition sensitive.

The definition of food systems incorporates different aspects of agriculture within the production side recognizing the contribution of different sub-sectors such as crop production, livestock, fishery, forestry, trade, etc. There are different options to make agriculture and food systems more nutrition-sensitive but it is important to always understand what is the entry point that needs to be leveraged as well as the possible trade off.



49. Did you have a documentation relate to Gender issues in Food Security Nutrition sensitive programmes/ policy /Actions?

Yes, gender is a cross cutting topic in the e-learning material for nutrition sensitive agriculture and food systems. In addition, there is a specific e-learning module on Gender-sensitive Value Chains.

50. During lockdown no school meal programs working, what could be the alternative?

FAO together with WFP and UNICEF has produced a policy brief on the types of options available to ensure that children that depend on school meals can still be reached during the COVID-19 pandemic. To date, approximately 168 million from 192 countries are missing out on their meals.

The joint note intends to provide government decision makers, school administrators/staff and partners with preliminary guidance on how to support, transform or adapt school feeding (in the short term) to help safeguard schoolchildren's food security and nutrition during the COVID-19 pandemic. Specific recommendations are provided according to the various target groups involved in school feeding. An additional section is focused on the case of home-grown school feeding. This guidance note will be regularly updated as the situation evolves, and new information becomes available. It complements other guidance from specialized UN agencies, such as UNESCO, WHO and partners.

Useful reading:

<https://cdn.wfp.org/2020/school-feeding-map/index.html>

<http://www.fao.org/documents/card/en/c/ca8434en/>

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