



How to transition to nutrition-sensitive and sustainable food systems

12 May 2021

Recording Link: <https://youtu.be/vZeJlf3U3LE>

Questions and Answers

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1) **Is it possible to transform the food systems into regenerative systems? Producing nutrients-dense food, while regenerating the top soil, the urgency of our time and the complexity of Natures regenerative Mastery demands Food systems that go beyond resilience, in order to be sustainable** Regenerative agriculture under climate smart agriculture, agroecology or sustainable agriculture is critical for the transformation of food systems toward resilient, efficient, and sustainable food systems. At the core of sustainable agriculture, regenerative systems can limit the degradation of biodiversity and soil fertility, integrated livestock and cropping operations, water percolation, etc.

2) **What are the human rights components in a food system FAO is working on?**

They are many aspects of human rights that FAO consider in the food system approach: gender equity, indigenous people, focus on the most vulnerable, etc. FAO has developed an approach to the right to food which guide our programmatic actions. For more information, you can refer to the right to food approach: <http://www.fao.org/right-to-food/en/>

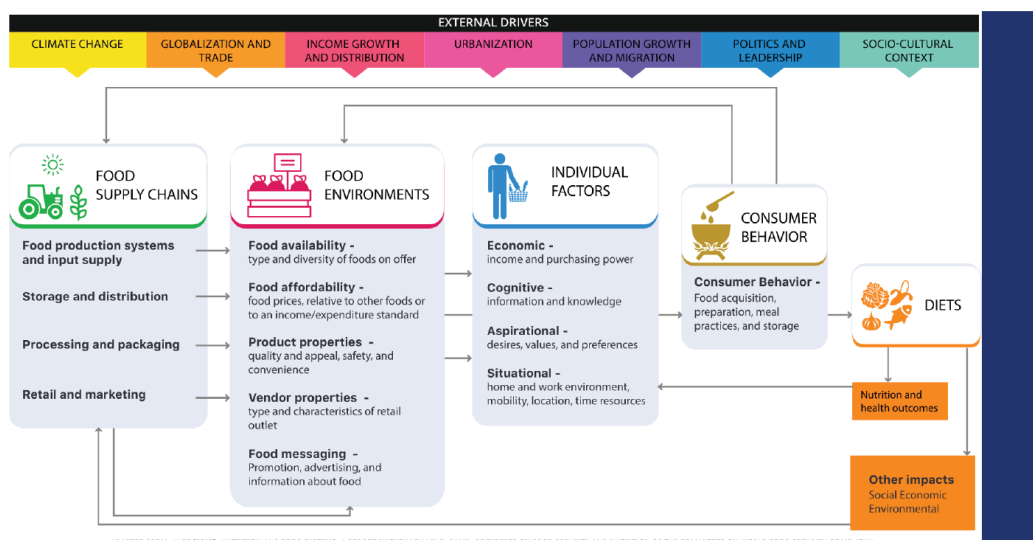
3) **In this whole framework what role grassroots level civil societies can play, and how they join the whole process of transformation of food-systems governed by FAO. Moreover, how to build capacity of local community to assess their food-system and how to design its transformations?**

CSOs have many roles: advocate for food systems transformation, pressure decision making and make them more accountable, promote good practices. We also have community-based approach to capacity building. One starting is to ensure that when implementing a project in a community, community members are involved in the advisory groups.

4) **Is there a simplified building blocks of a food system? like a health system...**

Yes, one was developed but it is now being refined. In the meantime, the one on the food systems dashboard is simpler that what was presented.

https://foodsystemsdashboard.org/assets/FSD%20About%20Pages_May2020.pdf



5) **Are there any ways to consider financial inclusion programmes for small holder farmers, which enable to diversify their business and lead a better life?**

Promoting pro-poor financial inclusion can improve food consumption, dietary diversity, and nutrition status. FAO is supporting several projects in Ethiopia, Kenya, Somalia, and Zimbabwe (among others) in social protection which consider the financial inclusion aspects.

- 6) In the syntropic Agroforestry Model by Ernst Götsch, the case studies done in Europe, and Brazil validated the principle that Water can be planted which is translated in food producing systems, supporting the water infiltration, in the soil, through soil coverage, and trees planting, is this a strategy You have adopted, or do you have other strategies towards supporting the water cycle?**

Other teams are working in the area of land and water issues. In our work, we did focus on that.

- 7) Did the capacity building programme only focus on food availability, access, and supplies, or did it consider issues such as post-harvest management, which reduce the quality as well as quantity of the produce which in turn affect the health of community? Besides, it is also to consider the market linkage, which enabled small holder farmers & other actors in the market to generate better income and improved their purchasing power.**

The capacity building programme covers the whole food chain from production to consumption and waste management. Value addition and postharvest management are a standalone session with 1 lecture and 2h30 self-guided learning. Now our CD so far focus on the nutrition sensitivity aspects only (while the sustainability and efficiency are important, they were not addressed). I can share the full agenda Value chain was one of the "star" topic, for example. Other market linkages is critical to improving nutrition, it is not covered in this training as we have to make choice and focus on areas with high potential for improving nutrition.

- 8) How to reduce/Minimize the greenhouse gases during the food production? any recommendations?**

The most recommended option now is the circular economy approach - The Songhai Center in Benin is applying this very well. "Circular agriculture" for long-term resilient Agri-food systems that generate business and economic opportunities for small holder farmers, provide environmental and societal benefits while reducing the negative impacts on people health and the planet. You can learn more [here](#).

- Songhai Center <http://www.songhai.org/index.php/en/home-en>

Some actions to consider include reducing reducing livestock gaze emissions by reuse of manure and wastes on pastures and reduce pasture land use, natural fertilizers using microorganisms and synthetic fertilizers from renewable energy sources, helping farmers access renewable energy systems and energy fuel efficient farming equipment, promote agroforestry systems (planting trees) that can stabilize and sequester carbon into vegetation and soils.

- 9) Are these eLearning courses free across all countries? Why are some countries like Ethiopia are not in FAO capacity development Roadmap list as per the presentation?**

Yes, all courses are available as a global public good. You can find out more [here](#).

Additionally, the prioritization process for FAO CD roadmap list is based on the request for technical assistance of FAO country offices based on the discussion they have with the government. While a country is not prioritized for 2021-2022, if need, the country can be included later.

- 10) Food systems transformation requires we start at the top, at the materials level i.e. cell-based alternatives. What are FAO's objectives with this regard?**



In many countries, plant- and cell-based approach to produce alternative to meat to mitigate the negative impact (cardiovascular disease, blood pressure, cholesterol) of overconsumption of meat is gaining momentum. It allow production of vegetable products which have similar flavor, texture, and/or nutritional aspects of meat but are different in composition.

11) Could I have a certificate of attendance of this webinar?

A certification of attendance is not foreseen after attending this webinar. You can obtain a digital badge taking one of the related courses and passing the evaluation with a score of 75% or higher.

12) Is the material available in local languages like Hindi, if not is it possible to translate it in local languages? if our organization proposes to participate in such translation, so that more and more local experts can be developed, what should be the approach?

Currently our elearning courses are translated in the official languages of FAO. For some specific inquiries about translation into other languages, we suggest you contacting the FAO elearning academy: elarning-support@fao.org.

13) Are there in the Guided self-learning orientation a Module or a chapter on activating Your Individual Agency for action? there are free tolls kits from a UN and UNEP partner, the UN school

You can refer to the following material:

1. <http://www.fao.org/3/ca5602en/ca5602en.pdf>
2. <https://docs.wfp.org/api/documents/WFP-0000022216/download/>
3. <https://www.ifad.org/documents/38714170/40804965/GFPD+Nutrition-sensitive+value+chains+VOL.1/5177a3c0-a148-4b1f-8fff-967a42f51ce8>

14) Agroecology is a better way to transition to nutrition-sensitive and sustainable food systems according to my understanding. How do you consider agroecology for this transition?

Agroecology is very important as it can help increase farmers' economic viability and income, farm productivity and diversity, food and nutritional security, and promote social change and women's empowerment. As such, there is need to consider the agroecology as we transit to nutrition-sensitive and sustainable food systems.

15) How much of this transition was implemented locally? Was it effective?

There is a commendable progress towards transition to nutrition-sensitive and sustainable food systems. Nutrition security is on the top of the agenda for most countries and most interventions programmes, especially in developing countries, are advocating for nutrition-sensitive and sustainable food systems as a way to eradication the double burden on malnutrition. Zimbabwe is also on the forefront regarding transition to nutrition-sensitive and sustainable food systems. Examples include adopting biofortification and practicing nutrition-sensitive climate smart agriculture, among other several strategies as a way to eradicate food and nutrition security in the country.

16) What are the options to select among climate change adaptation to promote towards positive impact?

Climate change adaption that promotes positive nutrition outcomes include adoption of drought tolerant crop varieties that are nutritious, e.g., adoption of traditional grains (sorghum, finger and pearl millet) and adoption of biofortified drought tolerant varieties.



17) What did FAO put in place in terms of Somalia's floods and lack of water by the end of the rainy season?

Many projects have been implemented supporting water infrastructure.

18) CIP is working to expand the production and consumption of orange-fleshed sweet potato OFSP which also is drought tolerant and is helping to recover from extreme weather events such as cyclones (in neighbouring Mozambique). Is OFSP part of your strategy?

Yes, OFSP value chain greatly contributes to nutrition outcome and at the same time OFSP is drought tolerant. Zimbabwe adopted Biofortification (Vitamin A biofortified orange maize and iron biofortified sugar bean and now OFSP).

19) How do you integrate Ecosystems based adaptation in the conceptual framework model for food systems and nutrition considering the different ecosystems?

We have not considered this at this stage, so difficult to respond. I believe the food systems is not a one size fit all, so the Food systems patterns drivers performance and impact vary from one region to another. for example, USA and Kenya and this needs to be considered. Further the issue of food environment is critical.

20) The definition of biodynamic/agroecology/regenerative agriculture seem to be very grey, although there are fundamental commonalities and desired outcomes: improved soil health and biodiversity, etc. Are there standardized definitions/protocols/guidelines being put in place?

True, this is still a grey area and limited research has been done so far and it seems there are no standardized definitions/protocols/guidelines now.

21) How does the role and care of the marginalized communities of farmers fit into these food systems? Are we providing incentives, for example research-based incentives of information sharing and learning? Are we providing specific health checks, for example home visits from healthcare workers or on-site weekly clinics...to respect the demanding schedule of the farmers?

All farmers play a central role in ensuring the sustainability of food systems. Following the concept of leaving no one or no community behind, marginalised communities of farmers should be taken on board and supported so that they fully participate and contribute to food systems. Not on marginalised farmers, but all marginalised groups of the society must be supported so that they fully participate. Support can be in the form of free farming inputs, increase access to loans, training, among other forms of support.

22) Ultimately, what advice would you give someone like myself (I am an MD) at the entry-level of shifting my career and wanting to help provide support to provide clean, affordable food systems for all?

Food systems is a wide and broad domain and I believe even as a MD, you still have a role to play. Health and wellbeing of farmers and their psycho-social being is very key. That is one are you can pursue and contribute on.

23) How are we planning food sustainability in adverse climatic conditions?

Adverse climate conditions such as drought and floods have a huge impact of food systems and their sustainability. For planning purposes, there is need for reliable early warning systems to be put in place. More so, in terms on reducing the impact on farming systems, there is need for communities quickly adapt and adopt farming systems that are tolerant to the prevailing climatic conditions. The adaptation strategies need to be contextualised to the climatic conditions.



24) It is a very nice presentation but think of financial inclusion programme for smallholder farmers, to build their capacity to participate & diversify their income, establishing linkages with financial institutions. This will enable smallholder farmers becoming resilient during shocks, rather than focussing on annual cereal crop production.

Of course this is part of the module on options for interventions. We were asked to share the experience of adapting training modules. there are several modules with various content.

25) Why not considering cultural aspects when talking about food systems?

Cultural aspects are very important. It is one of the key drivers of the consumer behaviour. The cultural aspects go beyond consumer behaviour, we need to change production behaviour, consumption behaviour and several cultural factors can impede that.

26) What is the difference between food systems and the one health approach for Covid-19?

These are two related concepts. Food systems exemplify the complex interdependencies between humans, our physical environment and other organisms. Changes to our food system, both as short-term shocks or long-term trends, have direct impacts on human, animal and environmental health. Linking food systems and One Health approaches closer together in research is a significant area of opportunity to enhance sustainability and inclusiveness.

Much like One Health, food systems are characterised by complex interdependencies between multiple actors. This includes all the interlinked actors in the supply and value chains for food products, from the production stage through to processing, packaging, distribution, consumption and waste management. Food systems also include the broader economic, societal and natural environment that supports them.¹

The health of animals, people, plants and the environment is interconnected. One Health is an integrated approach that recognizes this fundamental relationship and ensures that specialists in multiple sectors work together to tackle health threats to animals, humans, plants and the environment².

Further Reading:

1. [Uniting One Health and food systems for a more sustainable and inclusive world - www.rural21.com](http://www.rural21.com)
2. [One Health | FAO | Food and Agriculture Organization of the United Nations](https://www.frontiersin.org/articles/10.3389/fsufs.2020.00001/full)
3. <https://www.frontiersin.org/articles/10.3389/fsufs.2020.00001/full>

27) Science supports the affirmation that in the regenerative designed systems to produce nutrients dense food, the healthy soils support Healthy Life for all life, not just microbiome soil Life but also Human Beings Holistic Inclusive Health, do You agree?

Yes. Soil nutrient profile can have bearing on nutrition composition of crops for example. We have a project that we are working on with colleagues with from Agriculture to explore the spoil and human nutrition linkages for Zn and Se.

28) How can we get food security and sustainability in Fisheries?

¹ [Uniting One Health and food systems for a more sustainable and inclusive world - www.rural21.com](http://www.rural21.com)

² [One Health | FAO | Food and Agriculture Organization of the United Nations](https://www.frontiersin.org/articles/10.3389/fsufs.2020.00001/full)

Fish plays a key role for food security. It is a primary source of protein and essential nutrients. Fisheries, aquaculture and related activities provide income and livelihoods for numerous communities across the world, including small-scale fisheries. The growing demand for fish questions the sustainability of marine fisheries and aquaculture, now a fundamental supplier of fish³. There is need to consider environmental, social and economic challenges faced by all actors towards a sustainable supply of fish, sustainable livelihoods of fish-dependent communities and an equitable access to fish for the good nutrition of all populations worldwide. In addition, Governments should promote the implementation of the Food and Agriculture Organization of the United Nations (FAO) “Code of Conduct for Responsible Fisheries” to increase the contribution of fisheries to food security⁴.

Further Reading:

1. <http://www.fao.org/3/av032e/av032e.pdf>
2. <http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/458445/>

29) Covid19 has caused heavy death tolls, in more fragile immune systems, deficient in healthy nutrition, gathered from nutrients dense food, as well as food security, so it seems that the /IoT/ meaning the ‘Interconnectedness of Togetherness’, links healthy nutrition with Holistic inclusive Health, so producing local seasonal, organic food is a Health beneficial strategy, wouldn’t you say?

Yes. Holistic nutrition and utilisation of traditional and indigenous foods is beneficial especially in context of Covid19. The Organic produce has become even more popular during the pandemic as most of us believe healthy food will keep us healthy, too⁵. COVID-19 has highlighted the importance of achieving sustainable and healthy diets for all: ensuring availability, accessibility, affordability, and agency with regard to sufficient and nutritionally adequate food while, at the same time, ensuring that production, processing, distribution, and use do not impact climate and the environment negatively; possibly contributing to improve the delivery of ecosystem services⁶.

Further reading:

1. <https://www.dw.com/en/covid-19-special-pandemic-sharpens-appetite-for-organic-food/av-56474569>
2. <https://www.frontiersin.org/articles/10.3389/fsufs.2021.650987/full>

30) In February 2021, the Committee on World Food Security (CFS) endorsed its Voluntary Guidelines on Food Systems and Nutrition. This was a 4 years process that started with the launch of a report by the CFS scientific group – the HLPE – and continued with inclusive and participatory discussions among our members. These Voluntary Guidelines are a concrete tool in the hands of governments, UN agencies and other development actors that provides guidance on policies and interventions to address malnutrition in all its forms through a holistic ‘food systems’ perspective that considers food systems in their totality and looks at the multi-dimensional causes of malnutrition in all its forms. The Guidelines aim at promoting policy coherence and reducing policy fragmentation between relevant sectors like health, agriculture, education, environment, gender, social protection, trade, and employment - all of which impact food systems and nutrition.

Indeed. Thanks for sharing.

³ [Sustainable fisheries and aquaculture for food security and nutrition. A report by The High Level Panel of Experts on Food Security and Nutrition |Policy Support and Governance| Food and Agriculture Organization of the United Nations \(fao.org\)](http://www.fao.org/3/av032e/av032e.pdf)

⁴ <http://www.fao.org/3/av032e/av032e.pdf>

⁵ [COVID-19 Special: Pandemic sharpens appetite for organic food | DW News - latest news and breaking stories | DW | 05.02.2021](https://www.dw.com/en/covid-19-special-pandemic-sharpens-appetite-for-organic-food/av-56474569)

⁶ [Frontiers | COVID-19 and Sustainable Food Systems: What Should We Learn Before the Next Emergency | Sustainable Food Systems \(frontiersin.org\)](https://www.frontiersin.org/articles/10.3389/fsufs.2021.650987/full)

On **11 February 2021, Rome** - Members of the Committee on World Food Security (CFS) endorsed the first-ever [Voluntary Guidelines on Food Systems and Nutrition](#) aiming to support countries and others in their efforts to eradicate all forms of hunger and malnutrition by utilizing a comprehensive food systems approach. The endorsement took place during the [CFS 47th Session](#) (8-11 February 2021).

The Voluntary Guidelines represent a unique tool addressing malnutrition across the entire agri-food systems in a coherent and holistic manner. They include a wide range of recommendations aimed at reducing policy fragmentation between relevant sectors with a special emphasis on the food, agriculture and nutrition sectors, while also addressing economic, social, and environmental sustainability - all of which have an impact on food systems and have to be addressed at all levels.

Combatting malnutrition in all its forms including undernutrition, micronutrient deficiencies, overweight and obesity, is one of the most pressing global challenges for countries today.

Further reading:

1. <http://www.fao.org/news/story/en/item/1373942/icode/>

31) The CFS Voluntary Guidelines on Food Systems and Nutrition are based on the recognition of the multidimensional interlinkages between sustainable food systems and healthy diets, and the fundamental role that sustainable food systems play in promoting healthy diets– through sustainable production, sustainable management and use of natural resources, improved economic and social conditions and livelihoods of farmers. Specific recommendations are included concerning actions towards the promotion of transparent and accountable governance, sustainable food supply chains, access to healthy diets, food safety across sustainable food systems, nutrition education, gender equality, and resilient food systems in humanitarian contexts.

See Reply to Question 30 above. The Voluntary Guidelines are available at the following link:

http://www.fao.org/fileadmin/templates/cfs/Docs2021/Documents/CFS_VGs_Food_Systems_and_Nutrition_Strategy_EN.pdf

Two-page summary:

http://www.fao.org/fileadmin/templates/cfs/Docs2021/VGFSyN/CFS_VGFSyN_TwoPager_web_EN.pdf

These documents are available in other languages in the CFS webpage:

<http://www.fao.org/cfs/en/>

32) How does FAO involve Food Banks in Sustainable Food System in helping to end hunger, food insecurity and reducing food loss?

Food banks are a “green” hunger intervention, providing food assistance to the hungry, building up civil society, supporting sustainable food systems and protecting the environment through community-based, multi-sector collaborations. With its tremendous collective impact on reducing hunger, food waste and greenhouse gas emissions that contribute to a changing climate, food banking can play a vital role in creating a more environmentally sustainable, just, and equitable society.

Further Reading:

1. <https://www.foodbanking.org/why-we-exist/wastenotwantnot/#:~:text=Food%20banks%20are%20a%20%E2%80%9Cgreen,based%2C%20multi%2Dsector%20collaborations.>



2. <https://fromhungertohealth.wordpress.com/food-banks-today-tomorrow/food-bank-sustainability/>

33) The effect of COVID19 had created a number of challenges in the livelihood of the community. It create a high increase in the price of food commodities, goods and services & also create an a negative impact on food processing industries since they were able to get enough inputs from the producers.

Yes. Agreed. The lockdown period was associated with increase in food prices, decrease in dietary diversification⁷. The unfolding crisis has affected food systems and threatened people's access to food via multiple dynamics. We have witnessed not only a major disruption to food supply chains in the wake of lockdowns triggered by the global health crisis, but also a major global economic slowdown. These crises have resulted in lower incomes and higher prices of some foods, putting food out of reach for many, and undermining the right to food and stalling efforts to meet Sustainable Development Goal (SDG) 2: "Zero hunger."⁸

Further Reading:

1. <http://www.fao.org/3/cb1000en/cb1000en.pdf>
2. <http://dx.doi.org/10.1136/bmjnph-2020-000124>

34) When sharing tips and recipes, it would be beneficial to ally with the marketing Industry that programmed the consumers for the meat overconsumption, and with the medical science available that explains the negative impact of daily meat consumption. Is this a strategy in place?

Yes, meat consumption habits in western countries have become very widespread in recent decades. Besides, the message of reducing meat consumption seems to be heard, but it is not always easy to change well-established habits and the food offer, marketing and the cost may not help in this transition.

In our programme we have tried to explain based on scientific data the limits of livestock farming and the impact on health of an over-consumption of red meat in particular, but also to provide some nuance explaining also the interests of livestock farming (capturing CO2 in the meadows...). We tried to help the consumer to "eat less but better" by choosing certain meat 'cuts or by giving tips to reduce the frequency or the portions on the plate.

35) About the programme "Je mange mon futur": How do you measure your impacts/results?

We are assessing the impact of the program through a qualitative and quantitative longitudinal study (before, during and after launching the program).

The objectives are to evaluate:

- Exposure to the program (contents)
- Acquisition of knowledge about sustainable food;
- Change in individual attitudes towards sustainable food and intention to adopt a sustainable diet;
- Taking action (turn knowledge into action)

On one hand we are analysing data and statistics obtained via Instagram platform (e.g. average engagement rate, views, audience demographic...). On the other hands, we are following a panel of 20 persons conducting individual interview and focus group.

Results should be available this fall 2021, don't hesitate to send me an email if you are interested in the results and impact of this program: aurelie.zunino@chaire-anca.org

⁷ <http://dx.doi.org/10.1136/bmjnph-2020-000124>

⁸ <http://www.fao.org/3/cb1000en/cb1000en.pdf>

36) What is your consumer behaviour change business model as a company?

The ANCA chair is not a private company, it's a project of AgroParisTech a Public Institute of technology for life, food and environmental sciences

However, we are working with business and enterprises, to accompany them to understand consumers 'needs and the food transition in order to develop offers that are in line with sustainable goals and food behaviours.

37) How sustainability of innovative projects is possible with funding constraints?

It is not an easy task, education and awareness to consumers as well as actors of the food system should be a priority and be fund over time, over the course of life. Understanding and helping to achieve sustainable food behaviours is an important lever to transition to a more sustainable food system. In the case of our programme, we have succeeded to gather sponsors from public institution (French Ministry of food and agriculture, French Ministry of Health ...) and compagnies (Group SEB, Fondation Louis Bonduelle, AG2R La Mondiale). We hope that this programme will be sustainable and continued, it could be developed on an international scale if further support.

38) How is it possible to align theory and practice while educating farmers? Most extension workers are less motivated and educated in the developing country context.

Combining theory and practice is the best approach to farmer education. Theoretical capacity building is not efficient in adult learning. FAO usually use farmer field schools' approach to farmer education.

Link: <http://www.fao.org/farmer-field-schools/home/en/>

The second aspect of the issue raised is related to incentives for enhanced performance of all public servants, including agricultural extension systems due to low remuneration, lack of rewards and promotion opportunities, career development opportunities, poor management and leadership, lack of empowerment, etc.

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<https://online.fliphtml5.com/iuyqg/hnwi/>

