



RESEARCH PROGRAM ON Forests, Trees and Agroforestry

Forests, trees and agroforestry for better food systems and improved nutrition

*An international workshop organised by the CGIAR Research Program on
Forests, Trees and Agroforestry (FTA)*

The FTA Nutrition Priority

Bioversity headquarters, Rome, Italy

Tuesday 2nd – Thursday 4th July 2019



Day 1 participants

Objectives

Diets, nutrition and food systems are important topics for the CGIAR Research Program on Forests, Trees and Agroforestry (FTA). Forests, agroforestry systems and trees in other landscapes provide a diversity of nutritious foods that support healthy diets. They also support food security and nutrition indirectly through the ecosystem services that they provide to food production, the fuel they provide to cook food with, and by supporting livelihoods.

In response, FTA has developed, and is refining the content of, a research priority (the “FTA Nutrition Priority”) on the topic. The purposes of the workshop were to take stock of the current knowledge on how forests, trees and agroforestry affect human diets and to consider how research can be targeted to address key knowledge gaps in order to better support positive impacts. One output of the workshop will be a refined narrative for the FTA Nutrition Priority (see the workshop programme for further details on objectives; Appendix 1 at the end of this report).

The workshop took place over three days and was held in Rome. It was attended by a range of FTA participants, from the different ‘Flagships’ and relevant operational priorities of FTA, by A4NH representatives and by other partners and ‘external’ participants (participants are listed in Appendix 2 at the end of this report). On the first day of the workshop, the priority was given for ‘external’ participants to make contributions. On the second and third days, FTA and A4NH participants met to consider issues further.

The workshop involved a mix of plenary (presentations and discussions) and break-out sessions. The original agenda of the meeting is provided in Appendix 1, although some changes were made to the content of the workshop, based on useful lines of inquiry as they evolved in the meeting.

A summary of each day’s content of the workshop is provided below.

Tuesday 2nd July. Needs of stakeholders and priorities for research

Session 1. Key issues, key demands, key knowledge gaps?

- Vincent Gitz (FTA leader) introduced the workshop and the FTA Program.
- Barbara Burlingame (High Level Panel of Experts on Food Security and Nutrition [HLPE]) presented on the main findings of the 2017 HLPE report on nutrition and food systems (recording).
- Ramni Jamnadass (FTA, Flagship 1 leader) introduced the FTA Nutrition Priority.
- Davide Bradanini (Committee on World Food Security [CFS], Open Ended Working Group on Food Systems and Nutrition) introduced the CFS voluntary guidelines (draft zero) on food systems and nutrition.
- Stefano Padulosi (Bioversity International) introduced the indigenous food systems’ initiative
- Ana Islas Ramos (FAO) presented on the methodology for the preparation of [national] food-based dietary guidelines (recording).
- Florence Tartanac (FAO) presented on nutrition-sensitive value chains.
- Joyce Njoro (IFAD) introduced IFAD’s approach to nutrition-sensitive agriculture.
- Mutinta Hambayi (WFP) presented on leveraging agroforestry in school feeding for nutrition.

Key points from presentations and summary of plenary discussions

- A primary concern is the interactions between multiple food systems at different scales. In our work within the FTA Program, how can we contribute to a better understanding of these interactions and optimise them to support sustainable and healthy food production overall, across food sectors? **For example, where can knowledge on the use and management of forest/tree foods (e.g., on indigenous food system management) be transferred to dominant food systems to make them more sustainable? Are there good examples of such**

application, from ‘minority’ food systems to ‘dominant’ food systems? How might we support such transfer?

- We [still] need evidence, at a national and subnational level, for the linkages between forests, trees, agroforestry and nutritional [or dietary] outcomes. The evidence needs strengthening before it can confidently be applied to inform national dietary recommendations, relevant policies, etc. The FTA Program has an important role here.
- The HLPE report on nutrition and food systems calls for radical transformation, within which the ecosystem – supported by forests, trees and agroforestry – provides the context for a sustainable food system.
- Value chain research is often still based on ‘economic value’ rather than ‘nutritional value’. There needs to be greater consideration of diets/nutrition *as well as* income, looking at nutritional improvement potential from interventions *as well as* market potential. Further attention to consumers *as well as* producers as target beneficiaries is required. The FTA Program provides an example of a ‘food-basket’ (total diet) approach to consumption and there could be lessons for value chains for other food sectors.
- Some of the reasons behind the reduction in the use of indigenous food species include declines in availability, issues around land tenure, the perception that they are only foods for the poor, the loss of knowledge on their use, the high workload for their collection and their weak integration into market economies. Clearly, all of these issues need to be addressed.
- For the integration of tree foods into school feeding programmes, information on the seasonality of availability of foods, the underdevelopment of supply chains, safe usage information, knowledge on how to ensure sustainability, and the limited scale of available supply, are all concerns.
- Defining sustainable healthy diets is a sensitive topic because of cultural links to diets. Well intended food-based interventions may be counterproductive if, for example, they undermine food cultures in their entirety and do not consider diet ‘as a whole’ (rather than individual foods). In this respect, there may be lessons from diverse tree-based food systems for other food sectors.

To conclude this session, plenary broke into four working groups to address two questions (two groups addressed each question). The responses provided during the discussions are synthesized in the box below.

Working group discussions

The questions addressed and a summary of responses are as follow:

Q1. What are the roles of forests, trees and agroforestry for addressing local and global food needs?

The extent of these roles is often not particularly well known among policymakers, for example that most fruit consumed globally (around three-quarters, e.g., apple, citrus, avocado, mango) is produced by trees (plus palms and lianas) or that trees are essential for environmental services provision (such as habitat for crop pollinators). Tree foods including derived beverages are not only niche products but are major crop commodities. The production of these commodities depends on the genetic resources, often found in forests, that underpin the future development of these crops. Trees are an important component in many diverse agricultural systems.

Q2. What needs to change to better support the role of forests, trees and agroforestry for addressing (more nutritious) food needs?

Areas where change is required to support the wider promotion by society of forest/tree foods include:

- *Data availability.* At national and subnational levels data for production/consumption are often poor for wild foods and for neglected/underutilised species. This includes only limited data distinguishing between wild and cultivated sources of food, and limited information on the seasonality of production (when foods are produced in the year). There is therefore a need for data collection (e.g., by influencing existing data collectors to record relevant information), to build the evidence base on the importance of forests, trees and agroforestry. In this, the ecosystem services' roles of trees should be fully considered.
- *Addressing silo thinking.* Different aspects of food production and consumption are researched by different people and there is limited integration. A good example is the two HLPE reports published in 2017, one on nutrition and food systems and one on sustainable forestry for food security/nutrition. These reports were written in parallel but there was little (no?) communication between the writers. We need to understand the forces which prevent integrated action and that keep people in 'silos', to allow realignment to take place. We need ourselves to ensure we do not work in silos but take a 'whole system' approach, communicating with all the relevant government sectors at a national level. Using the right language in these discussions is also important (e.g., 'delicacy' may be a better term to use than 'orphan' crop).
- *Increasing investment.* We need to increase investment in the FTA sector, to translate undertaken research into a policy response that encourages further investment.

Session 2. Providing solutions and answering critical knowledge gaps

Several presenters provided information on FTA's current work on diets. This work explores links between landscapes and diets, and tests the effectiveness of different food-based interventions for production and dietary diversification, among other research:

- Amy Ickowitz (CIFOR) presented on forests, multifunctional landscapes and diets.
- Stepha McMullin (ICRAF) presented on agroforestry, food tree diversity and underutilised/orphan crops.
- Celine Termote and Barbara Vinceti (both Bioversity International) presented on linkages between biodiversity and nutrition: diversity, genetic resources and diversification in the field.

To conclude this session, plenary broke into four working groups to address two (further) questions (two groups addressed each question). The responses are given in the box below.

Working group discussions

The questions addressed and a summary of responses are as follow:

Q3. What are the prominent research gaps that need to be addressed for forests, trees and agroforestry to better support sustainable food systems?

- *Basic research.* More production-based research is needed to support water use efficiency, productivity, effective integration into farming systems, and reduced labour and investment costs. Processing research is required to deal with production/market gluts, close seasonality gaps, etc. Market chain research is needed to make value chains less wasteful and more

sustainable, and enable them to support a wide diversity of products. Consumer research is needed to assess how to positively change perceptions and behaviour.

- *Testing practical interventions.* This should include both production and consumption sides, such as testing input supply for production and the effectiveness of nutrition-sensitive value chains involving the private sector, consumer awareness campaigns, etc. Once we have workable solutions we should share this knowledge with a wide range of partners.
- [See also bullet on 'Data availability' in previous box.]

Q4. What are the key interventions/levers to maximise forests, trees and agroforestry contributions to food and nutritional security?

Areas for intervention/leverage include:

- More comprehensive training of both agricultural extension workers *and* health workers about nutritious crops for health.
- Seek leverage by communicating with existing, well-known nutrition champions.
- Seek to make governing systems (responsible for healthy diets) accountable. Working at a subnational (county) level with local authorities may be a good way of doing this. At the same time, ensure civil society know their rights and have access to those in authority who are meant to be accountable to them. This means working with NGOs that are good at advocacy even if they are not good in technical implementation.
- Strive for tree-based foods to be integrated into food-based dietary guidelines. A starting point is better documentation of these foods in national production and consumption statistics.

Wednesday 3rd July. Implications for FTA. Revisiting workplans and partnerships

- Inge Brouwer (A4NH + Wageningen) provided an overview of the food systems for healthier diets (FSHD) flagship that is part of the CGIAR Research Program on Agriculture for Nutrition and Health (A4NH).
- Terry Sunderland (CIFOR + University of British Columbia) provided information on the HLPE report on sustainable forestry for food security and nutrition.
- Kai Mauscher (ICRAF), Ana Maria Paez-Valencia (ICRAF), Lisa Fuchs (ICRAF), Michael Brady (CIFOR) and Roeland Kindt (ICRAF) provided information on the relationship between the FTA Nutrition Priority and impact, gender, livelihood system, value chain and climate change work within FTA, respectively.

Key points from presentations and summary of plenary discussions

- The reasons why we think the current food system is failing depend on our perspective. Agriculturalists tend to worry about calories (food security) and want to close the yield gap. Nutritionists worry about food quality and want to close the nutrition gap. Agroecologists worry about the environment and focus on sustainability. Socio-economists worry about distribution and want to focus on grassroots, empowerment, etc. The interventions different disciplines propose are also therefore different. What is FTA's worry about food systems and what therefore is its focus for intervention? And does it understand the trade-offs involved (for example, in balancing restoration activities – to restore ecosystems and fix carbon – with food production from trees)?

- The term ‘nutrition’ needs to be used carefully. It is often better to focus one step earlier, on healthy, diverse diets. This point should be made clear early in the FTA Nutrition Priority narrative. It is okay to use the nutrition priority label, but should immediately explain what it covers – it is about dietary diversity and sustainability.
- Within the CGIAR, a lot of work has been done on food production, with some of this work linked to markets for income. There has however been limited work done on food environments and consumer behaviour, and what has been done has often been incoherent. Similarly, there has been limited work on urban food systems. Because FTA works on systems rather than specific commodities, it does have an advantage in taking a food system approach when compared to crop production-oriented CGIAR Research Programs. In particular, FTA has an advantage in taking a landscape-based food system approach. This can address questions such as: how do we maximise landscape configurations (forest <> agriculture) for healthy diets? **The FTA Program looks at complex food landscapes in transition and the drivers behind these transitions. This should provide lessons for how we maintain/achieve diverse agricultural landscapes more broadly.** (Especially working with the CGIAR Water, Land and Ecosystems Research Program.)
- Priority areas for collaboration on food systems within the CGIAR according to consultations led by A4NH are titled: **“Let Markets Work for Diets”** (how do we change food environments for better diets?); **“Bottom-Up Meets Top-Down”** (do we start from governance [top] or the community [bottom] and how do we get this right?); **“Reverse Thinking: What do Consumers Want?”** (consumer behaviour); and **“From Single Foods to Healthy Diets”** (how do we work better across CGIAR Research Programs?). The first step is to build a community of practice on food environments. The next area tackled will be on consumer behaviour. Important are to build common metrics, exchange relevant production and consumption data, and align food system research in focus countries (for FSHD these are Bangladesh, Ethiopia, Nigeria, Vietnam). Common proposals are one way to do this.
- The FTA Nutrition Priority needs to be explained widely within FTA so that others know how to collect relevant data (impact, gender, food diversity, livelihoods, climate, etc.). We need to better develop collaboration across FTA flagships on the FTA Nutrition Priority and reflect this in the narrative of the priority. We need to articulate how work in the FTA Nutrition Priority can more widely inform other work in FTA – what useful does it add to the wider agenda?

In a departure from the original agenda, which was to be focused on discussions around the flagships of FTA, we instead broke into working groups to discuss the priority areas for collaboration that were defined by the A4NH Program, with the support of Inge Brouwer (see box above). We split into three groups, each considering one of the priority areas, except “Reverse Thinking: What do Consumers Want?” and “From Single Foods to Healthy Diets” were considered together by one group.

Working group discussions

Activity 1. Let Markets Work for Diets

This group considered two areas of intervention. The first was the development of a trade hub for marketing locally sourced food. This would involve the establishment of an internet-based hub in which buyers and sellers of locally sourced foods can be searched and can exchange information, possibly leading to (separate) transactions. The hub would also include information on safeguards related to food origin, production and processing, as well as on nutritional aspects. The hub could build on other related initiatives by FAO, ICRAF and others, and it could be a sub-platform of an

existing platform. A guiding principle of hub development would be the equitable sharing of benefits.

The second area of intervention concerned improved access to finance for the healthy food sector. This would involve pricing studies/value chain analysis for healthy and less healthy diets in an effort to understand what is happening in the current market (e.g., under/over consumption, availability and price of specific foods, market segmentation) and identify suitable foods for promotion. Business cases to demonstrate the financial viability of financing projects related to healthy food production, processing and marketing would then be built. Risk analysis of the technical and commercial aspects of food businesses and ESG safeguards would also be carried out, and policy and regulatory activities explored to improve financial infrastructure to support access to finance. Financing products would be developed with financial institutions to roll out across agribusiness networks. Potential partners should include national banks involved in agri financing, the World Bank Group (World Bank, International Finance Corporation), regional MDBs (AFDB, ADB, etc.), FAO, international commercial banks and financial institutions, impact investors and local research partners strong in agricultural market studies. Indonesia would be a good country for this initiative in part because of National Socioeconomic Survey (SUSENAS) data that can be used to identify food group gaps, and because it already has a developed commercial sector.

Activity 2. Reverse Thinking: What do Consumers Want? and From Single Foods to Healthy Diets

This group focused on 'tools', their standardisation and 'modularisation'. There is a need for standardised tools and definitions that can be used to collect nutrition-related data, to explore consumer behaviour and the related drivers. These need to be used within the FTA Nutrition Priority and more widely. For example, for FTA Flagship 2 on livelihood systems, standard nutrition-related indicators should also be available, to move analysis beyond just assessing incomes. Different sets of 'nutrition' indicators should be made available to the FTA Program: 'minimum', 'nice to have', 'full set'. A4NH are planning to build a cross-CGIAR community of practice, starting with food environments, and this will involve FTA researchers. FTA researchers will be involved in an A4NH learning laboratory.

Activity 3. Bottom-Up Meets Top-Down

This group focused discussion on the interactions between the dominant food system and local food systems, considering Ethiopia as a case study for research. CIFOR and ICRAF both have some data on local food systems (diets, markets and production systems) in different agroecological zones in Ethiopia. Further information is available in the literature. These data could be used to characterise some local food systems with more/less diversity than the dominant food system, as characterised by Living Standards Measurement Study (LSMS) data. This information could be used as a basis for recommendations to improve diet quality for the larger dominant food system. The plan is to undertake this work through a desk study.

Thursday 4th July. Implications for FTA. Revisiting workplans and partnerships (continued)

Contributions of FTA to the wider global agenda

Discussion led by Vincent Gitz, Alexandre Meybeck and Ramni Jamnadass focused on placing FTA's work on nutrition within the wider global agenda for food systems and diets. Opportunities include: the Global Landscape Forum 2020 (in Bonn) which will be on food; CBD 2020 (Kunming; event prior

to COP on agroecology and biodiversity); the micronutrient forum on food systems in 2020 (Bangkok); mainstreaming nutrition in afforestation/reforestation activities (Bonn Challenge, National Action Plans, etc.); inputs into the evidence base for food-based dietary guidelines; and inputs into the CFS voluntary guidelines on food systems and nutrition. Needed are case studies from past and ongoing research.

Possible contributions of the FTA Nutrition Priority group to various initiatives were compiled during the workshop (contributions were suggested on an individual participant basis) and are in Appendix 2.

Discussion then focused specifically on contributions to the CFS voluntary guidelines (draft zero) on food systems and nutrition. Plenary broke into two working groups to address questions according to CFS's template for providing comment. The results of discussions were further elaborated before sending as an FTA contribution to CFS, see Appendix 3, and is available online here: http://www.fao.org/fsnforum/activities/discussions/cfs_food_systems_nutrition?page=2.)

Workshop closure

The workshop concluded with some action points for the future. Each of the three priority areas for collaboration (last box above) require follow up by the leaders of the working group discussions.

The narrative of the FTA Nutrition Priority should be adjusted based on the discussion during the meeting. One point for action is to include a clear explanation that our primary focus is on diets.

Food safety, food acceptability, nutrition-sensitive value chains, financial mechanisms, nutrition-sensitive restoration, agroecology and nutrition, gender, food environments, 'dominant food diets', and voluntary food guidelines, should all be covered. The text must reflect what we actually do and then how this informs other processes.

Celine Termote, Stepha McMullin and Amy Ickowitz, with Bronwen Powell, will be responsible for further developing the narrative. An improved version will be reviewed by Inge Brouwer. The final revised version will be available in September.

Appendix 1. Workshop agenda

Day 1:



Forests, Trees and Agroforestry for better food systems and improved nutrition: Needs of stakeholders and priorities for research

An international workshop
organized by the CGIAR Research Program on Forests, Trees and Agroforestry (FTA)

Bioversity headquarters, Rome (Italy)
2 July 2019

Objectives

The on-going debates on food systems and nutrition, including recent discussions in the Committee on World Food Security (CFS) on Sustainable Forestry and Food Security and Nutrition as well as on Nutrition and Food Systems, are very relevant for the CGIAR Research Program on Forests, Trees and Agroforestry (FTA)'s research priority on nutrition and food systems. The discussions raise many questions, of which the following are of note:

- What are the **impact pathways by which** forests, trees and agroforestry influence nutrition, for different groups of people and at different scales, locally and globally? What is our state of understanding of the links between landscapes, local and global markets and the sustainability of food systems? And, what are the demands of key stakeholders regarding trees and landscapes in relation to nutrition?
- What are the most effective **actions** that could improve nutrition by leveraging the role of forests and trees in the landscape and in the local and global food systems?
- What are the knowledge gaps? What are the main demands/needs from stakeholders, from capacity, practice, policy, etc. – that FTA can contribute to provide solutions to? What gaps do stakeholders identify? What are the most effective ways to **better inform policy and practice**?

The purpose of this workshop is to take stock of current knowledge and to see how FTA's current and future work can be structured to help answer some of these key questions. This workshop will contribute to orient the collaborative work of FTA on these issues for the period 2019-2021.

The specific objectives of the workshop are to:

- 1. Take stock of the demand from stakeholders (especially in the context of developing countries), of the state of knowledge and of FTA's work in addressing the above issues.**
- 2. Envisage ways to enhance the contribution of research to development demands and to fill knowledge gaps**

To do this, we will consider FTA's role and experiences, the views of FTA partners and the perspectives of a wider group of experts. We will review the overall objectives of FTA's nutrition priority, including targets for positively informing global policies and practices. This will help determine gaps in the work covered by the priority, and if/how these should be filled. We will discuss comparative advantages, relevant additional partners to include in FTA's work, and/or with whom we should better link.

Rationale and background

Nutrition is an increasingly visible and important topic in international fora and programs as witnessed by the United Nations Decade of Action on Nutrition (2016–2025), the intergovernmental Second International Conference on Nutrition (2014), and many other initiatives that consider food and nutritional security in connection with biodiversity, climate change and sustainable development, including the CBD, the UNFCCC and the SDGs.

Perspectives on food security and nutrition have dramatically changed with the acknowledgement of the triple burden of malnutrition (too few calories, insufficient nutrients and overconsumption) and with growing interest in the links between food systems and nutrition. However, the objectives of different stakeholders within the food system and the positions they hold in debates are often antagonistic. Evolving towards sustainable and healthy diets will require profound changes in behaviour and practice for many categories of actors, with supportive policies. What are the incentives for change? What are the roles for science and research, and which are the most effective ways for research to have impact?

Forests, agroforestry systems and other poly-cultural landscapes provide a diversity of nutritious foods that support healthy diets, and also support food security and nutrition indirectly through the ecosystem services that they provide to food production and livelihoods. Mosaic landscapes characterised by trees and secondary forests with agriculture are, however, rapidly changing, often in favour of homogenous landscapes characterized by monoculture and high input agriculture options, with unintended, context-specific and potentially negative dietary impacts that interact with consumers' age, gender, education, location (e.g., urban or rural), cultural norms and income, among other factors.

FTA through its nutrition priority seeks to provide evidence and inform policies that demonstrate and promote the roles of landscapes in contributing to sustainable food systems and healthy diets and to promoting the integration of a variety of nutritious forest and tree foods into value chains, investigating corresponding consumption patterns and nutrition implications. It can bring broader lessons for sustainable agriculture and sustainable food systems for better nutrition. To do this effectively, however, the comparative advantage of FTA in nutrition research needs to be better articulated.

In this workshop, we will address these issues in line with the objectives defined above. We need to understand better the impact pathways by which forests, trees and agroforestry practices influence diets, for whom, and at what scale (farm, landscape, global, etc.), and what can be done to improve benefits and reduce any negative impacts.

Programme

09:00 Registration

09:30 Welcome by Bioversity International, Stephan Weise, Deputy Director General for Research (5')

[Session 1]

Key issues, key demands, key knowledge gaps?

09:35 -12:45

Planned outputs of Session 1:

- Shared understanding of the role of forests, trees and agroforestry in food systems and of their potential contributions to improved nutrition
- Identification of key knowledge, capacity, policy, etc., gaps

1. Introduction to the workshop and to the CGIARs Programme on Forests, Trees and Agroforestry (FTA) - Vincent Gitz (FTA) 5'
2. Main findings of the HLPE report Nutrition and Food Systems - Barbara Burlingame- by video (HLPE) 20'
3. Introduction to the FTA nutrition priority – what it covers, objectives, research questions, desired outcomes, planned outputs, wider content of the FTA programme, etc. - Ramni Jamnadass (ICRAF) 10'
4. Plenary presentation(s) by key groups and stakeholders – their perspectives on food and nutrition, their demands, what their specific work covers, and their need for evidence and science. Global state of play and what is going on? What could FTA provide to their work and what do they expect from FTA?

a) Big international issues and debates

- CFS voluntary guidelines on food systems CFS – OEWG Vice-Chair, Dr Davide Bradanini , Deputy permanent representative of Italy to the Rome-Based agencies. 15'
- FAO biodiversity strategy and links nutrition / biodiversity in CBD - Paulo Lourenco Dias Nunes (FAO) 10'
- The Indigenous food systems initiative - Stefano Padulosi (Bioversity) 10'

Discussion (20')

Coffee break (11:05-11:20)

b) Means of Action (10' each)

- Preparation of the methodology for the food based voluntary guidelines - Ana Islas – by video (FAO)
- Nutrition sensitive sustainable value chains – Florence Tartanac (FAO)
- Nutrition sensitive agriculture - Joyce Njoro (IFAD)
- School feeding programmes and how trees/fruits could contribute) - Mutinta Hambayi (WFP)

5. Dialogue (60')

- Moderated dialogue between stakeholders and scientists to analyse how the contributions of trees, forests and agroforestry within a food systems perspective can answer global and local needs (SDGs, Decade on Nutrition, CFS recommendations etc).
- Discussion on the main levers to enable trees, forests and agroforestry to fully play their role towards sustainable food systems and healthy diets, locally and globally.
- Progressing towards identification of a set of actions on which research could focus (amongst the CFS recommendations for instance)

Some questions to guide the Panel discussion:

- 1) *What are role of forests, trees and agroforestry for addressing local and global food needs?*
- 2) *What needs to change to better support the role of forests, trees and agroforestry for addressing (more nutritious) food needs?*
- 3) *What are the prominent research gaps that need to be addressed for forests, trees and agroforestry to better support sustainable food systems?*

Lunch Break (12:45-14:00)

[Session 2]

Providing solutions and answering critical knowledge gaps.

14:00-17:30

Purpose of Session 2:

- Refined description of specific research needs for enhancing the role of forests, trees and agroforestry for better food systems and improved nutrition
- This session aims to go deeper into selected topics, emerging trends and emerging findings, and identify key knowledge gaps.

Summary of the morning discussion – Ramni Jamnadass to provide feedback and synthesis

Focus topics – each briefly introduced by an FTA scientist (10' each)

1. Impacts of deforestation and of landscape simplification on diets; Landscape change and dietary change - Amy Ickowitz (CIFOR)
2. Agroforestry and the value of food tree diversity, and underutilized/ orphan food crops which have the potential to provide nutrients and address seasonality in local food systems - Stepha McMullin (ICRAF)

15:00 – 15:30 Coffee break

3. Linkages between biodiversity and nutrition: diversity, genetic resources, diversification in the field - Celine Termote (Bioversity)
4. Plenary discussions: 45 – 60 minutes

17:00 Closure

Days 2 and 3:



CGIAR Research Program on Forests, Trees and Agroforestry

Nutrition priority workshop

Bioversity headquarters, Rome (Italy)
Two day internal workshop
3rd and 4th July 2019

(Closed sessions limited to FTA staff/ consultants and Inge Bouwer and Gina Kennedy, A4NH)

Day 2: Implications for FTA. Revisiting workplans and partnerships

Wednesday 3rd of July 2019

Planned outputs for day 2:

- Refined description of specific research needs for enhancing the role of forests, trees and agroforestry for better food systems and improved nutrition , with inputs from all FTA FPs.
- Refined narrative, work plan and action points for the FTA nutrition priority, 2019 to 2021.

Time	Content Description	Presenter
9:00 - 9:45	Initial reflections from Day 1 Overview of food systems for healthier diets (FSHD) and collaboration between FTA and FSHD	Inge Brouwer (A4NH – FSHD, WUR)
9:45 - 10:15	Sustainable forestry for food security and nutrition: A report by the High Level Panel of Experts on Food Security and Nutrition, HLPE and collaboration opportunities	Terry Sunderland (UBC)
10:15 – 10:25	Brief overview of current FTA Nutrition Priority workplans 2019 – 2021	AI, SMcM, CT
10:25 – 10:50	Brief introduction by FP representatives of their programme, and potential for integrating/collaborating with nutrition priority. 5' each	[FP 2, 3, 5, Impact & Adoption Unit of ICRAF, Gender]
10:50 - 11:15	Break Out Groups: Working groups for the different flagships (2, 3, 5 with Gender scientists) – Current FP research, on-going nutrition relevant research, interest/needs for integration of nutrition in research, - How can nutrition priority work across all FPs?, Propose synergistic workplans, relevant bilateral support	All
11:15 - 11:30	Coffee break	
11:30 – 12:45	Break Out Session – continued	All

12:45 – 13:45	Lunch	
13:45 – 15:00	Refine the current narrative for the nutrition priority – [Based on content from Break Out groups and discussed in Plenary]	Ian Dawson and All
15:00 - 15:15	Coffee break	
15.15 – 16.45	Update FTA Nutrition Priority framework and workplans (Outputs, Responsibilities, Timelines and other operational needs e.g. meetings)	All
16.45 – 17.00	Synthesis and Wrap up of Day 2	Vincent Gitz & Ramni Jamnadass

Day 3: Implications for FTA. Revisiting workplans and partnerships (continued)
Thursday 4th July 2019

In this session we will:

- Discuss further workstreams that lend to the entry points for FTA into the global agenda for food systems and diets
- In the final synthesis session, wrap up and finalise the framework for operationalising FTA nutrition priority work plans, 2019-2021, based on presentations made in day 1, presentations and discussion of day 2.

Time	Content Description	Presenter
9:00 - 10:00	Opportunities for FTA in the global agenda - Food systems and Diets	Alexandre Meybeck & Vincent Gitz
10:00 –11:00	Plenary Discussion - Research deliverables / High level outputs/Tangible outputs for upcoming events: High level outputs could include, among other <ul style="list-style-type: none"> - Preparation of FTA contribution to the public consultation on the voluntary guidelines of CFS - Preparation of a paper for CBD on the post 2020 Global Biodiversity Framework - Preparation of a contribution to the methodology on Food Based Dietary Guidelines - Policy brief FTA, food systems and healthier diets 	All
11:00 - 11:30	Coffee break	
11:30 – 13:00	Final session bringing everything together to finalize the orientation of the FTA program of work <ul style="list-style-type: none"> - Action points and operationalisation of framework for nutrition priority – collaborative outputs, people, timelines, 	All

	mode of engagement, (virtual, physical) etc.	
*** End of workshop on Thursday 4 July at 1pm.***		
Session outside of meeting: Core team (RJ, AI, CT, SMcM) to discuss and draft collaborative concept note (?), Others are free to join if available and interested.		

Appendix 2. Participants list. Forests, Trees and Agroforestry for better food systems and improved nutrition

Workshop, 2 to 4 July 2019, Bioversity International, Rome, Italy

Name	Email	Organization	Base
Davide Bradanini	davide.bradanini@esteri.it	Permanent Rep of Italy to the UN Organisations in Rome	Italy (Rome)
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Appendix 2

Possible contributions of the FTA Nutrition Priority group to various initiatives. Based on discussions in Rome workshop, 2 to 4 July 2019		
Agenda	FTA contribution?	Who, with whom, when?
Illustrative examples?	https://forestsnews.cifor.org/59674/agricultural-intensification-has-fed-the-world-but-are-we-healthier?fnl=en https://forestsnews.cifor.org/60872/superfood-from-cameroon-forest-scores-best-for-womens-health?fnl=en https://forestsnews.cifor.org/53111/what-do-forests-have-to-do-with-food?fnl=en https://forestsnews.cifor.org/58192/expansion-of-oil-palm-plantations-into-forests-appears-to-be-changing-local-diets-in-indonesia?fnl=en https://forestsnews.cifor.org/52266/wild-nourishment?fnl=en https://forestsnews.cifor.org/51201/forests-farming-and-food?fnl=en https://forestsnews.cifor.org/51201/forests-farming-and-food?fnl=en http://blog.worldagroforestry.org/index.php/2015/08/04/first-fruit-tree-portfolios-established-in-kenya-in-a-novel-approach-to-improve-year-round-nutrition/ https://www.worldagroforestry.org/news/using-agroforestry-address-seasonal-food-and-nutrient-gaps-communities-case-study-kenya https://www.worldagroforestry.org/output/nutritious-food-portfolios-filling-food-harvest-and-nutrient-%E2%80%98gaps%E2%80%99-local-food-systems-ngobit	

	http://foreststreesagroforestry.org/wp-content/uploads/pdf/Enhancing-food-system-resilience-flyer.pdf http://www.tropentag.de/2018/abstracts/links/Stadlmayr_8ACVcZs4.pdf https://www.slideshare.net/agroforestry/diversifying-landscapes-with-trees-and-diets-with-nutritious-tree-foods	
GLF 2020 on food	<ol style="list-style-type: none"> 1. FTA for food and nutritional security: upstream approaches for downstream application 2. FTA: traditional and modern challenges and approaches to feed developing world 3. FTA's tools and decision support tools to support biodiversity 4. Genomics: successful stories for FTA to expedite breeding of tree foods. 5. Mainstreaming tree foods into nutritious food systems. 6. Orphan crops; AOCC <p>Stepha, Bronwen, Barbara, and Amy:</p> <ul style="list-style-type: none"> • Local/indigenous food systems with partners/community members from Uganda, Ethiopia, Papua, Cameroon, Kenya) – with maybe an added emphasis on the “right to food”: https://www.slideshare.net/GlobalLandscapesForum/the-right-to-food-protected-areas-access-and-food-security • Landscape change and threats to local food systems (or present reversed: optimum landscape configurations for smallholder food production) • Restoration & food – making restoration more nutrition sensitive (overview of evidence of what is being done (CIFOR- Amy); and tools for incorporating nutrition in restoration (ICRAF- Stepha); BI food trees & potential for achieving restoration targets -Chris Kettle see also the Korean example: http://www.fao.org/3/a-i5444e.pdf • School feeding (led by BI – Danny Hunter, Theresa Borelli) • Would be good to have something on the policy environment and why, despite all the evidence being produced (e.g., the HLPE report), no-one is really talking about the inclusion of forests into food production systems: https://www.slideshare.net/CIFOR/forests-food-and-nutrition-a-policy-perspective <p>Ideas of topics, sessions?</p> <ul style="list-style-type: none"> • Understanding and challenging norms that influence consumption behaviour and create conditions that enable uptake of better diets. For example, understand the role of men in the pathway from production to consumption, also the role of care work and the 	<p>GCT with Nutrition team. Possible collaboration with gender colleagues in A4NH</p> <p>C.Kettle, M. Guariguata B.Vinceti</p> <p>D.Hunter, T.Borelli</p>

	<p>trade-offs of engaging women in income generating activities when reproductive burden is not recognized.</p> <ul style="list-style-type: none"> • How are gender relations and power dynamics influencing decisions around what is consumed and what is sold from the farm production, and how income is spent on food <p>Wild food collection/NTFPs, example from Peru (SUSTAIN project; www.sustain.pe/) Bioversity-CIFOR.</p> <p>Global markets for forest foods linked to financing restoration (Bioversity)</p> <p>Video on Parkia biglobosa, a key food tree species in west Africa: (https://www.youtube.com/watch?v=Zb4Ma6xGLQc)</p> <p>School feeding (B4N)??</p> <p>Ideas of topics, sessions?</p> <ul style="list-style-type: none"> • Local food systems • Nutrition responsive restoration initiatives – tools and approaches • Landscape changes and threats to local food systems <p>Tree Diversity Day – build on past events held at CBD COPs.</p>	
CBD 2020	<p>Ian: on agroecology, we could extract something from the recent review (with FTA authors) in Global Food Security “Contributions of biodiversity to the sustainable intensification of food production”, which was based on a study supporting the SOW-BFA 2019.</p> <p>Fergus Sinclair (ICRAF) on agroecology contributions (considering the nutrition context).</p> <p>CIFOR: I am pretty sure that John Fa or Lauren Coad will present on sustainable wildlife management from CIFOR. We could also do something more generally on wild foods (and rights?)</p>	<p>Ian: I’d be happy to try and summarise any key messages in the Global Food Security review around nutrition, as need be.</p>

	<p>Would like to see a session on ecosystem service provision by forests and trees and positive impacts on agriculture (http://www.forestlivelihoods.org/working-groups/forests-sustaining-agriculture-the-contribution-of-forest-based-ecosystem-services-to-agricultural-production/). E.g. increased wheat yield and nutritional value in Ethiopia in proximity to tree-based systems: https://www.sciencedirect.com/science/article/pii/S0167880918303025. There are many other good examples that could form the basis of a good session. See also: https://www.sciencedirect.com/science/article/pii/S1389934117300345</p> <p>Examples of tools, databases and decision support tools:</p> <p>Conservation of tree diversity -genetic resources, ICRAF agroforestry field and ex situ genebanks-</p> <p>http://www.worldagroforestry.org/products/grunew/</p> <p>Databases for tree knowledge and information:</p> <p>http://www.worldagroforestry.org/products/switchboard</p> <p>http://www.worldagroforestry.org/output/agroforestree-database</p> <p>https://play.google.com/store/apps/details?id=com.icraf.gsl.africatreefinder (Africa Tree Finder android App)</p> <p>https://play.google.com/store/apps/details?id=org.worldagroforestry.afdb.agroforestreedatabase (Agroforestree Database android App)</p> <p>Tools of assessment of tree diversity:</p> <p>http://www.worldagroforestry.org/output/tree-diversity-analysis</p> <p>https://CRAN.R-project.org/package=vegan (> 1,500,000 installations)</p> <p>https://CRAN.R-project.org/package=BiodiversityR (> 100,000 installations)</p> <p>http://www.vegetationmap4africa.org</p> <p>Tree species (diversity) suitability with climate:</p> <p>http://www.worldagroforestry.org/output/useful-tree-species-africa</p> <p>http://www.worldagroforestry.org/usefultrees/index.php</p> <p>http://www.worldagroforestry.org/atlas-central-america</p>	
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	<p>Supporting planting of tree diversity:</p> <p>http://www.worldagroforestry.org/output/tree-seeds-farmers-toolkit-and-reference-source</p> <p>https://www.youtube.com/watch?v=ZsmunU87Dgg&feature=youtu.be (video on smart phone apps) https://ecoregions2017.appspot.com/ (download shapefile 150mb)</p> <p>The GCT has contributed to the integration of gender perspectives in the CBD post-2020 global biodiversity framework. Particularly identifying the key gender considerations and dimensions that need to be addressed in respect to the sustainable management of biodiversity and the landscapes sustaining it.</p> <p>Contributions of evidence are mostly related to work on forest and landscapes restoration, REDD+, local and indigenous knowledge</p> <p>This initiative at UBC is also of interest and relevance: http://ubcfarm.ubc.ca/darc/#Meet-our-members-section</p> <p>Conservation of genetic resources of important food tree species (Central Asia, South-East Asia)</p> <p>Agroecology (Bioiversity, Biovision)</p> <p>School feeding (B4N)??</p>	<p>The GCT has a close relationship with Tanya McGregor the CBD gender focal point.</p> <p>Iliana Monterroso from the team recently attended an Expert Workshop - Gender Considerations in the Post-2020 Global Biodiversity Framework organized at the UN-Women Headquarters in New York, and a blog was published about this.</p> <p>R. Jalonen, C. Kettle</p> <p>C. Termote</p> <p>D. Hunter, T. Borelli</p>
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Evidence base for FBDGs	<p>Gender-specific knowledge on uses and preferences of food trees products, and food tree species in specific geographies (i.e. Kenya, Uganda, Ethiopia, Burkina Faso, Vietnam).</p> <p>Expertise in value chain analyses of various commodities in different countries to identify constraints and opportunities in production and marketing.</p>	<p>Ongoing and published research from Food-tree portfolios (ICRAF), Shea (IDRC project, WAFFI project, Marlene's research, among others).</p> <p>CIFOR Value Chains, Finance and Investment (VFI) program at CIFOR; FTA P16 on inclusive finance and business models;</p> <p>Initiated after funding secured, possibly in early 2020.</p> <p>Possibly link to CIFOR's involvement in the UKRI GCRF Trade, Development and the Environment Hub, led by the UN Environment World Conservation Monitoring Centre.</p>
Evidence base for the revision of the Methodology for developing FBDGs	<p>CIFOR (Amy) and ICRAF (Stepha) provided data on food tree production and use – consumption (forest and farm) in our project sites for contributing to background review paper for contributing to FBDGs in Ethiopia.</p>	

<p>Mainstreaming nutrition in afforestation/restoration activities (Bonn challenge, NDCs, NAPs)</p>	<p>CIFOR is currently working on a review of how existing research and project implementation for restoration incorporates food security and nutrition. Hoping it will be done by October.</p> <p>Examples of restoration with food trees? See: http://www.fao.org/3/a-i5444e.pdf</p> <p>Safeguards for local foods during tree plantation development and operations through agroforestry and natural area conservation.</p> <p>Improved access to finance for healthy food sector through development of i) trade hub for marketing locally sourced food, and ii) business cases and risk assessments to demonstrate financial viability of financing projects related to healthy food production, processing and marketing.</p> <p>Examples of restoration with food trees?</p> <p>D4R (restoration tool) inclusive of selection criteria for tree species to be used in restoration based on nutritional value (Bioversity)</p> <p>See Illustrative links above and links to two key bilateral grants.</p> <p>https://www.worldagroforestry.org/project/food-trees-diversified-diets-improved-nutrition-and-better-livelihoods-smallholders-east</p> <p>https://www.worldagroforestry.org/project/agro-biodiversity-and-landscape-restoration-food-security-and-nutrition-eastern-africa</p> <p>http://vegetationmap4africa.org/</p> <p>Use interactive maps to support selection of suitable species for targeting food and nutrition – and soon to be linked to an ICRAF Food Tree Priority Composition Database (Should be online by August 2019).</p>	<p>FTA P2 on plantations. To be discussed during July 2019 team workshops. Initiated after funding secured, possibly in early 2020.</p> <p>FTA P16 on inclusive finance and business models; and P17 on innovating finance for sustainable landscapes. To be discussed during July 2019 team workshops. Initiated after funding secured, possibly in early 2020.</p> <p>C. Termote, B. Vinceti, E. Thomas</p>
<p>CFS Voluntary guidelines on food systems</p>	<p>Ian: this will come up later, but looking at the guidance for contributions, it seemed like we could say specific things around: interlinkages in production systems across the forest transition curve; something around availability and physical access (proximity); something on evolving food habits and traditional food cultures. We</p>	

and nutrition	may seek to challenge “conventional wisdom.” E.g., trees are not just niche food products – most fruit globally is from trees...	
ANH Academy	Learning Lab?	Bioversity ready to contribute to a learning lab.
Micronutrient forum July 12 deadline for abstract	Abstract? <i>Parkia biglobosa</i> study (Bioversity)	C. Termote, B. Vinceti (It would be nice to have more papers presented by FTA in order to give visibility to the role of trees in nutrition)

CFS POLICY PROCESS ON THE DEVELOPMENT OF THE VOLUNTARY GUIDELINES ON FOOD SYSTEMS AND NUTRITION

The following submission has been prepared by the Forests, Trees and Agroforestry research program of the CGIAR (FTA) during its nutrition priority workshop. It builds upon the HLPE reports on Sustainable Forestry for Food Security and Nutrition (2017) and on Nutrition and Food systems and on other scientific publications, with main references listed in the end of this contribution.

- 1. Does Chapter 1 adequately reflect the current situation of malnutrition and its related causes and impacts, particularly in line with the goals and targets of the 2030 Agenda? What are the underlying problems that currently hinder food systems to deliver healthy diets?**

General comments:

- Chapter 1 adequately reflects the global current situation of malnutrition, proximate causes and impacts. There could be value in better showing that situations vary a lot between countries and groups. For instance the specificities of small island states, land locked countries, mountainous areas, as well as of indigenous and traditional food systems need to be mentioned.
- The food system dimension should be better framed; The underlying problems that currently hinder food systems to deliver healthy diets are not described. It could be done by referring to the HLPE report. Different perspectives on why the food systems is failing are not addressed. Environmental focus needs to be highlighted, forests, oceans, natural resources etc.. It could include the parallel often made between planetary and human health. Nor is mentioned the critical role of investment by the private sector.

- 1 and 4:** Too strong focus on nutrition and too little focus on diets, on foods, particularly in 1 and 4. E.g. It is not mentioned in number 4 that too little consumption of fruits and vegetables is also leading to diet-related non-communicable disease. Not only overweight and obesity is leading to NCD;
- 7.** Could also be mentioned the effects of global changes, such as the impacts of deforestation on the diets of forest dependant populations, including indigenous peoples.
- 9.** Missing drivers of negative behaviour, private sector should be mentioned
- 10.** Technological processes/changes is missing;
- 11:** This paragraph could deserve some rewording, in particular to distinguish people with high nutrient requirements and people that have low access/are more vulnerable.
- 12.** Wording could be improved; e.g. income is not a sector, gender is not a sector; there are no policies on income. Other sectors should be added – land use planning. The different agriculture sectors should be explicitly mentioned, like forestry, fisheries;
- 18.** Could be added the need to ensure that it is sustainable.
- 20.** add “diversity and” before “complexity”.
- 24.** This paragraph would be better placed earlier in the text, for instance between paras 9 and 10.
- 26.** Community based organizations could be added.
- 28.** footnote 13 need to be corrected, the reference is HLPE. 2014. Food losses and waste in the context of sustainable food systems.
- 32.** Focus on nutrient adequacy, but not much on diversity,

2. What should be the guiding principles to promote sustainable food systems that improve nutrition and enable healthy diets? What are your comments about the principles outlined in Chapter 2? Are they the most appropriate for your national/regional contexts?

Page 8: Guiding principles

The guiding principles contain principles that are more objectives, like c), d) and f) and others that are more means of interventions like a), b), e), g). There could be value in reorganizing the list. It would be good to add a guiding principle on “coordinated action” between different categories of actors, including partnerships.

a) replace “maximize outcome” by “optimize outcome”

add “with particular attention to the trade-offs involved”

b) Replace “policies” by “policies and measures”.

d) Could be enlarged to vulnerable and marginalized groups, with “Equity and inclusiveness” as an objective.

e) Nutrition knowledge is an activity rather than a principle.

g) Capacity-building is again an action rather than a principle. With e) could be gathered under an aspect of integrated learning that also addresses learning loops

3. In consideration of the policy areas identified in Chapter 3 and the enabling factors suggested in paragraph 41 of the Zero Draft, what policy entry points should be covered in Chapter 3, taking into account the need to foster policy coherence and address policy fragmentation?

General comments:

The organization of this part, by component of the food systems, risks not hide the links between them. In a determined food system, they interact and determine each other. It should be highlighted in the beginning and the end.

It also risks hiding the diversity of food systems, their specificities, specific constraints, challenges and opportunities. It should be emphasized in the beginning of the part, making explicit reference to the typology of food systems. It could mention the need to take into account the specificities of small island states, land locked countries, mountainous areas, as well as of indigenous and traditional food systems. It could also explicitly mention the need to build upon traditional healthy diets.

In general, this part seems to be very urban food systems oriented. It should recognize that in spite of growing urbanization an important part of the population, and an important of the undernourished and malnourished are rural. Rural food systems deserve equal attention, particularly those that are isolated, marginalized and/or confronted to changes in land use and diets. Solutions are likely to be very different from those for urban areas.

When “agriculture” covers also forestry, fisheries and aquaculture, as per FAO’s definition, there would be value in making it explicit for those who are not accustomed to FAO’s definition.

43. The list of policy relevant areas could be better organized, thematically and logically.

a) should explicitly mention agroecology and agroforestry.

b) add “for the different categories of the population”.

c) should explicitly mention agroecology and agroforestry.

Replace “crop varieties” by “plant species and varieties”.

Policy-relevant areas that refer to sustainable and diverse food production systems should be more explicit. They should for instance consider the inclusion of tree-based systems which provide direct and indirect benefits: around 74% of fruit produced globally are harvested from trees[1], which also produce nutritious leafy vegetables, nuts, seeds and edible oils. Surveys show that tree cover is positively associated with dietary diversity and fruit and vegetable consumption (Ickowitz et al. 2014). Moreover, the deep and extensive roots of trees make them more drought tolerant than annual crops, meaning they can provide food in dry periods when other food sources are not available (Jamnadass et al. 2011; Kehlenbeck et al. 2013). Tree foods have thus the potential to complement and diversify the predominantly staple-based diets of rural households through the year.

d) Need to integrate, either in this item or in the previous one the definition of agrobiodiversity:

“The variety and variability of animals, plants and micro-organisms that are used directly or indirectly for food and agriculture, including crops, livestock, forestry and fisheries. It comprises the diversity of genetic resources (varieties, breeds) and species used for food, fodder, fibre, fuel and pharmaceuticals. It also includes the diversity of non-harvested species that support production (soil micro-organisms, predators, pollinators), and those in the wider environment that support agro-ecosystems (agricultural, pastoral, forest and aquatic) as well as the diversity of the agro-ecosystems.” (FAO. 1999a. Agricultural Biodiversity, Multifunctional Character of Agriculture and Land Conference, Background Paper 1. Maastricht, Netherlands. September 1999.)

The title of this section could be “sustainable management and use of forests, aquatic resources and other wild resources to better cover their multiple contributions to food security and nutrition:

- As a direct source of food, not only complementary, but in many cases fundamental, see the HLPE report on fisheries and aquaculture for the contribution of aquatic resources to the nutrition of small island states, and of various categories of population and the HLPE report on sustainable forestry for FSN on the contribution of forest foods to forest dependent people.
- As a source of income (see the HLPE reports mentioned above)
- As providing other ecosystem services that are essential to all agriculture activities

e) could explicitly mention food trees and vegetables for which both knowledge and conservation efforts are lagging behind staple crops.

g) Women & gender issues are only discussed with reference to production systems, but they cut across the different aspects including marketing, distribution, availability, accessibility, and particularly social norms and values.

h) after “fruits”, add “nuts”. Need to also make explicit reference to the potential of numerous indigenous vegetables and tree crops, including so called “orphan crops” that need to be characterized, domesticated, and made available.

47. Misses the cultural and social dimension of the definition of “food environment” as it figures in para 30. Replace the last line by “towards food environments that are conducive to healthier diets and more sustainable food systems”.

[1] Data for 2016, <http://www.fao.org/faostat/en>, accessed on 14 April 2019.

48. a) Important to consider also the specificities of food deserts and food swamps out of urban areas. Rural food systems deserve equal attention, particularly those that are isolated, marginalized and/or confronted to changes in land use and diets. Solutions are likely to be very different from those for urban areas.

49. first line, add “and isolated populations”.

50. c) social protection programs should be based on traditional diets that are supportive of local cultural food practices; risk of changing food cultures particularly with subsidies or in-kind transfers of staple foods.

51. Communication about food does not arrive in a vacuum. Need to relate it to Food Culture. Labelling is not only for young people; labeling of unhealthy foods is important for all segments of the population particularly with respect to sugary beverages and processed meats. Important also to communicate appropriate information about unpackaged food to avoid creating biases.

52 B. or in 55. Idea for policies to improve desirability of healthy foods such as ‘chef manifesto’ ; having celebrities market healthy foods.

53. Could link to sustainability in all its dimensions.

55. b) should be put first as the FBG should guide all actions towards consumers.

56. a) add “globalization”.

- 4. Can you provide specific examples of new policies, interventions, initiatives, alliances and institutional arrangements which should be considered, as well as challenges, constraints, and trade-offs relevant to the three constituent elements of food systems presented in Chapter 3? In your view, what would the “ideal” food system look like, and what targets/metrics can help guide policy-making?**

There are numerous examples of policies, interventions, initiatives, alliances and institutional arrangements which should be considered both in the HLPE report and in the consultations conducted for it.

Several types of initiatives are of particular interest:

Those that build upon national and local identity, food culture and specific food system including the revitalization of the Mediterranean diet, the Nordic diet initiative, the promotion of traditional and healthy diets and traditional foods in China, Korea, Japan.

Measures that support local food systems.

Measures that build upon traditional practices, like the community freezer program in Inuit communities of Canada.

Initiatives that build upon local agrobiodiversity to promote more diverse and nutritious diets. For instance:

- In Kenya, Bioversity International and its partners focused on conservation, capacity building and raising awareness of the nutritional and culture values of traditional vegetables. Demand for leafy vegetables in Kenya now outweighs supply, with an astonishing 1 100 percent increase in sales in just two years. Incomes have increased too, particularly where farmers have been successfully linked to markets, with women, the main producers of leafy vegetables, the main beneficiaries. In almost 80 percent of households surveyed, it was the women who kept the cash from the sale of leafy vegetables and who decided how
- it would be spent – mostly on more and better food and schooling for the children (Bioversity International, 2010).
- In Marrakech, the Global Diversity Foundation is restoring a school garden with the help of the staff and students of the Lalla Aouda Saadia School. The garden, which features both ornamental and edible plants, draws on Morocco's rich cultural history. The project, which aims to reach 1 300 schoolgirls, will provide nutritious food for the students while teaching them about the environment and food traditions. The students take part in field research by interviewing Marrakech herbalists about important cultural recipes. <http://tinyurl.com/6k6367p>
- In the Federated States of Micronesia (FSM), a shift from traditional to imported foods over the past three decades has brought serious health problems to the region. Prior to the 1970s, there were no documented instances of vitamin A deficiency in FSM. By 2000, over 50 percent of all children under the age of five were deficient in vitamin A, a condition that often leads to childhood blindness and early death. The Island Food Community of Pohnpe initiated a "Let's Go Local" campaign to promote important elements of nutrient analysis and conservation. It is particularly concerned with promoting foods that are rich in provitamin A carotenoids, especially beta-carotene. It has seen a significant increase in the consumption of indigenous bananas, taro and green vegetables in the target communities. www.islandfood.org/index.htm

Measures that promote diverse indigenous foods through the creation of new value chains, thus both improving the food security and nutrition of small producers by adding a new source of income and the nutrition of urban consumers by providing a new source of nutrient rich foods; like for instance Son tra in Vietnam. Son tra is an indigenous wild fruit tree species that grows naturally in forests around the Himalayas. In 2013, researchers from the World Agroforestry Centre (ICRAF) teamed up with the National Institute of Medicinal Materials in Hanoi, Vietnam, and identified in son tra fruit

essential bioactive substances of polyphenols (key human dietary antioxidants) and triterpene acids, which have anti-inflammatory and antitumor properties. FTA helped domesticate the tree and expand the market for son tra, developing and commercializing novel products to overcome difficulties in consuming it fresh, allowing prices to be maintained, while supply increases because more farmers are growing the fruit. For farmers growing son tra alongside other crops, this has led to increased farm livelihoods and resilience to crop price shocks. Read more at blog.worldagroforestry.org/6625

As mentioned above, and shown by some of the examples above, the analysis of constraints, trade offs and synergies needs to be done in the food system, it cannot be reduced a priori to one of the components. More over it is generally in the system as a whole that actors need to be coordinated and need to find their own interest to act. One critical point to consider is the question of food prices. Some authors insist on the need for prices to be low, to facilitate access of the poorest to food. However, most of the poorest are food producers. On the contrary low food prices do not enable food producers to have a decent income that would them to have a diversified and healthy nutr to invest for future food production. Therefore access of the poorest to food should be assured by other means than a low price, like for instance social protection and ultimately poverty eradication to which a healthy and remunerative food sector is a key contributor.

The ideal food system is well envisioned by the HLPE definition of sustainable food systems: “A sustainable food system (SFS) is a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised.” Meaning that it provides healthy diets for all, including the poorest, while providing enough income to food producers that they themselves can benefit from a good standard of living conducive to health and good nutrition and can invest for future food production, while sustainably managing the natural resources on which food production depends.

With the adoption of the SDGs the global community has already a clear set of targets and indicators to orient its action. However, it may be necessary to identify, for a determined food system, what are the priorities, the most critical points to address and to select specific targets and indicators reflecting these priorities.

5. How would these Voluntary Guidelines be most useful for different stakeholders, especially at national and regional levels, once endorsed by CFS?

These Voluntary guidelines could, along with a strong evidence base, ground a shared understanding of the situation of a specific food system, what needs to be done and how it can be achieved.

They can facilitate the implementation of FBDGs as well as the design of policies and measures that support their implementation.

They can guide the action of public authorities responsible for the design and implementation of policies related to food systems.

They can facilitate collective and coordinated action of diverse categories of actors.

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