Thematic Working Group on Agriculture, Food Security and Land Use

Online Exchange Forum | Building climate resilient food systems based on the 10 Agroecology elements

27.10.2020

9:30 - 11:00 CET // 15:00 - 16:30 CET

This document summarizes the key points and questions addressed during the online sessions held on 27 October 2020. We invite you to access the recordings and other resources available in the 'Additional resources' section below for more information.

IPES Food

Emile Frison

- Existing food systems are not sustainable, being responsible for about one third of global GHG emissions. The need for **transformational changes of our food systems through diversified agroecological farming** that support resilient and sustainable pathways is well recognized.
- Agroecology can contribute to food security while addressing climate challenges as it boosts biodiversity, restores degraded land, improves ecosystem services and increases soil carbon sequestration. **It can also improve economic performances.**
- The concentration of power over the food industry within a handful of companies controlling the vast majority of seeds, fertilizers and pesticides production gives those companies a tremendous influence over policies. This is one of the 8 Lock-Ins for change expressed in the 2016 report *From Uniformity to Diversity*[1].
- Changes in production practices, social and economic relations, institutional frameworks, and knowledge generation and transmission are needed, in line with agroecological elements.

Biovision

Martin Herren

- A recent study by FAO and Biovision highlights the **links between agroecology and climate change** by providing evidence on the technical (i.e. ecological and socio-economic) and policy potential of agroecology to build resilient food systems.
- Solid evidence demonstrates that **agroecology increases resilience**, especially by strengthening a) ecological principles, in particular biodiversity, overall diversity and healthy soils (Meta-analysis & case studies results); and b) social aspects, in particular co-creation and sharing of knowledge and building on traditions (case study results).
- The interdisciplinary and systemic nature of agroecology is key for its true transformational power but also a challenge.

[1] The 8 'lock-ins' holding back transition to diversified agroecological systems are path dependency, export orientation, the expectation of cheap food, compartmentalized thinking, short-term thinking, 'feed the world' narratives, measures of success, and concentration of power.

Climate Focus

Ingrid Schulte

- The Enhancing NDCs for Food Systems paper produced by Climate Focus, UN Environment, WWF and EAT aims to provide **recommendations for policy makers to increase ambition of the Nationally Determined Contributions (NDCs**) by leveraging the climate mitigation and adaptation potential of a transition to sustainable food systems.
- The current NDC enhancement process offers an opportunity to address food systems emissions and further include agroecological practices in the NDCs.
- The paper includes a **checklist of measures that can be considered at the different stages of the food system, including agroecological approaches**. Policy makers can reflect on the measures that are most appropriate for their countries and specific context.
- Food systems have a high potential for climate change mitigation, but this is **not sufficiently reflected in the NDCs**. There is also limited reference to changing diets and reducing food loss and waste in the NDCs.

Sustainable Food Systems Platform for Natural Farming (SuSPNF), Himachal Pradesh, India

Prof. Rajeshwar Singh Chandel

- Through the SuSPNF, the state of Himachal Pradesh aims to **build a complete sustainable food system that integrates the 10 agroecology elements**.
- The flagship KP3 programme has supported more than 80.000 small-scale farmers convert to natural farming. The **aim is to convert all 900.000 farmers in the state**, which will require the use of big data analytics and the conversion of state programmes into national programmes.
- The main objective of the programme is to meet AtamaNirbhar: Self-Sufficient, Nutritionally Secure, Surplus Production. It focuses on agrobiodiversity[2] through **sustainable crop intensification, protection of the Himalayan ecosystems, water conservation, land restoration, soil health and socioeconomic wellbeing** of farmers, in line with India's INDC.
- Building strong **supply value chains and market linkages to the production base, through transparency and traceability mechanisms** is key. The programme supports the development of stable and organized markets, as opposed to the existing small disorganized ones.

World Wide Fund for Nature, Thailand

Ply Pirom

- The decline in climate resilience of smallholder farmers can be seen as a vicious circle, whereby the lack of land tenure causes farmers to pursue unsustainable agricultural practices overall affecting the resilience of smallholder family farmers.
- The Forest Landscape Restoration project[3], funded by IKI, started in 2017 in northern Thailand to **promote reforestation activities on degraded land**.
- Interventions under the initiative FLR349: benefits include the **provision of financial incentives** for farmers to transition from monoculture to diversified crops, **capacity building, value chain and market development, and land adjustment and irrigation**. These lead to healthier soils, improved livelihoods, reduced climate risks and vulnerability, increased adaptive capacity and resilience, and climate change mitigation.

[2] The programme covers a large number of agricultural products, from millets, pseudo-cereals, mountain rice varieties to wild forage crops.

[3] Forest Landscape Restoration through Agroecology. A nature-based solution for ecosystem restoration and resilient community.

- **Smallholder family farmers are powerful agents** of change in achieving the SDGs. Agroecology has proven to be better at protecting biodiversity, ecosystems and social linkages, providing an inclusive and more productive production per unit of land.

Vestergaard

Allan Mortensen

- Vestergaard is a private sector actor supporting smallholder farmers in Sub-Saharan Africa and Asia by reducing post-harvest losses at the storage stage of the value chain.
- Responding to the disconnect between smallholder farmers producing poor quality agricultural outputs with low reliability and traceability, and the larger off-takers.
- Vestergaard's Chombo system was developed to **provide price stability and higher quality of agricultural inputs (seeds)**, as well as support farmers to integrate value chains, mitigate risks and increase their income by **linking them with off-takers**.
- The system is based around rural storage of agricultural commodities, ensuring that off-takers have secure storage facilities in rural settings through **controls of storage containers, improved traceability all the way down to the farmers**, use of QR codes and mobile money.

World Wide Fund for Nature, Zimbabwe

Enos Shumba

- WWF's project "Transition to Agroecology in Smallholder Farmers Systems" in Zimbabwe focuses on how to: reintroduce agroecology in Zimbabwe's smallholder farming sector; advocate for agroecology through multi-stakeholder platforms; and integrate sustainable food systems into Zimbabwe's NDC.
- The project targets the following issues: household food and nutrition insecurity and high poverty levels; low agricultural productivity and agricultural expansion; unsustainable agricultural value chains; and inadequate institutional and policy support. As such, the project looks at: the use of **agroecological technologies and practices such as conservation agriculture, agroforestry and integrated land management**; the provision of extension services and trainings; the adequacy of policies; and the need for **interdisciplinary and inter-sectorial multi-stakeholder platforms to advocate for an agroecological transition**.
- A GHG inventory for the AFOLU sector is underway and will contribute to better integration of food systems and agroecology in the revised NDC.

Facilitated discussion

Do you have recommendations on how we could better connect and enhance the integration of food system approaches and, especially, resilient food systems, into the upcoming climate negotiations and the revised NDCs?

Democratic Republic of the Congo

Tosi Mpanu-Mpanu, Ambassador and lead negotiator for UNFCCC

- Food systems are prevalent in the UNFCCC. The ultimate objective of the Convention is to stabilize GHG emissions which ensures food production is not threatened by climate change.
- Countries have different needs and require different adaptation approaches. NDCs are considered as tools to be used by countries in their efforts to coordinate different approaches.
- There are two priorities to be addressed: 1) We must **ensure food security**: fresh, healthy and nutritious food for all. It is everyone's responsibility in order to achieve a world without hunger.

2) We must **reduce food loss and waste**. Pest and diseases, as well as transport and storage infrastructure issues need to be addressed so that good food does not go to waste.

- The **African Risk Capacity**, a specialized agency of the African Union, **provides climate insurance to governments** to protect their agricultural sector. It allows governments to avoid possible losses that can hinder years of continuous growth in the agricultural sector.

What are the characteristics of resilient food systems at national level? Do you have concrete examples and suggestions on how countries can implement resilient food systems?

ICRAF

Fergus Sinclair, Leader Resilient Livelihood Systems

- Agroecology is not yet widespread for a number of reasons, despite clear benefits for climate resilience. There are three concrete items to focus on when building resilient food systems:
  1. Market failures: Smallholders are very concerned about the economic aspect, but they might not be able to realize the benefits of adopting new practices due to **maladapted policies that disturb the market, e.g. subsidies to inorganic fertilizers, or inadequate legislation**. Market failures may also depend on consumer choices and the extent to which consumers can exert agency in the food system. **Participatory guarantee systems can help build trust** between consumers and producers around natural farming products and create higher market value for these products.
  2. Vertical and horizontal integration: Agroecology requires **intersectoral and inter-ministerial cooperation.**
  3. **There is a 'missing middle':** commitments at national and international levels may not get translated into actions on the ground. There is often **no policy structures or social capital at the local landscape scale**, where ecosystem services first manifest and can be managed. Without the ability to act at this scale, looking at synergies and trade-offs, it will be very difficult to manage agroecological transitions.

FAO

Edmundo Barrios, Agricultural Officer

- Responding to both local and national expectations and desires, as well as global commitments, is a major constraint to real transformative change of agri-food systems.
- FAO developed the **10 elements of agroecology as an analytical framework** to support the design of differentiated paths for agricultural and food systems transformation for increased resilience. The framework highlights four promising entry points: biodiversity, consumers, education and governance. Nexus approaches are used to highlight and examine salient interactions among different sectors and entry points, addressing the issue of silo thinking.
- The **Biodiversity-Nutrition-Climate Change nexus** highlights diversification as a central issue to face climate change as well as nutrition challenges. Diversity of activities and livelihood options within food systems is a fundamental adaptative trait, particularly in the context of climate change.
- The **Consumers-Markets-Health nexus** highlights how food consumption patterns exert overwhelming influence over food systems and human health. The increasing demand for diversified, nutritious and safer food for consumers can support cleaner production, shorter value chains, diversified markets and promote green jobs. **Public food procurement networks and school feeding programmes** provide concrete examples of how public policies can simultaneously address food and nutrition security, social inclusion and biodiversity-friendly agriculture, providing strong support for agroecological transitions to sustainable food systems.

- The **Education-Government-Youth-Employment nexus** highlights that transformative change begins with the way we think, hence the **essential role of education** in developing and nurturing holistic thinking underpinning agroecology in order to fuel and sustain the transformative changes needed to transition to sustainable food systems. Innovative youth **employment models where municipal land is given to engage in agroecological farming** is a concrete example that shows strong potential to reduce youth migration rates from rural areas.

What should be done between now and the Food Systems Summit and climate summit in 2021 to enhance joint approaches?

Democratic Republic of the Congo
Tosi Mpanu-Mpanu, Ambassador and lead negotiator for UNFCCC

- We are facing extraordinary circumstances with COVID-19, but there are still things we can try to push forward, especially food security and the reduction of food loss and waste.
- The **IPCC Special Report under development can send a strong message at the Food Summit**, one that is objective, insightful and informative.
- The Koronivia Joint Work on Agriculture under the **UNFCCC can also help in providing the tools** to address issues of food security and climate change, including in relation to NDCs and NAPs.

How do you think we could overcome the silo thinking at the global and national levels, in view of the three upcoming Summits in 2021 (on biodiversity, climate and food)?

ICRAF
Fergus Sinclair, Leader Resilient Livelihood Systems
- **Integration is needed, especially at lower levels** where decisions are not made in silos. The challenge is to get this much-needed integration at the subnational, local and landscape levels. Without policy instruments, policy structures and social capital at these levels, it will be very difficult for agroecology to have traction in food systems.

FAO
Edmundo Barrios, Agricultural Officer
- The disconnection between food production and consumption limits the capacity for alignment of single actors and collective action towards positive economic, environmental and social impacts.
- It is important to **embrace holistic frameworks to guide transitions** towards sustainable food systems.

Closing Remarks

FAO
Martial Bernoux, Senior Natural Resources Officer
- Three main takeaways from the discussion:
  1. **Resilience:** Our actions are our future. We need more resilient and robust agri-food systems, and global solidarity. Even more so today, when there are two million people suffering from moderate to severe food insecurity, and an additional 130 million people might fall into food insecurity as a result of the COVID-19 pandemic.
  2. **Complexity:** We can and must provide complex solutions to the complex issues we are facing, and deal with the three pillars of sustainable development: social, economic, environmental.
  3. **Breaking silos:** This is the only way to address complexity. There are many opportunities to do this: through the Sustainable Development Goals and the Decade of Action under Agenda 2030, the UNFCCC and its new track of negotiations on agriculture (the Koronivia Joint Work on Agriculture or KJWA), and the NDCs at national level.

Additional resources

Agroecology

The 10 elements of Agroecology: enabling transitions towards sustainable agriculture and food systems through visual narratives
https://doi.org/10.1080/26395916.2020.1808705

The potential of agroecology to build climate-resilient livelihoods and food systems
http://www.fao.org/climate-change/programmes-and-projects/detail/en/c/1199897/

The contribution of agroecological approaches to realizing climate-resilient agriculture
https://cdn.gca.org/assets/2019-12/TheContributionsOfAgroecologicalApproaches.pdf

Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition
http://www.fao.org/3/ca5602en/ca5602en.pdf

Viability initiative within the TPP on agroecological transitions
https://www.foreststreesagroforestry.org/fta-publication/documenting-and-evaluating-the-socio-economic-viability-of-agroecological-practices-across-africa-pdf/

From uniformity to diversity
http://www.ipes-food.org/_img/upload/files/UniformityToDiversity_FULL.pdf

Food Systems

Enabling sustainable food systems
https://www.inrae.fr/sites/default/files/pdf/CA9917EN.pdf

Enabling sustainable food systems innovators' handbook
http://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1308923/

The food system approach in agroecology supported by natural and social sciences: topics, concepts, applications
https://www.researchgate.net/publication/279191851_The_Food_System_Approach_in_Agroecology_Supported_by_Natural_and_Social_Sciences_Topics_Concepts_Applications

Approaches to sustainable agriculture: exploring the pathways towards the future of farming
https://portals.iucn.org/library/node/49054

Enhancing NDCs for food systems: recommendations for decision-makers
https://wwfeu.awsassets.panda.org/downloads/wwf_ndc_food_final_low_res.pdf

Country examples

Agroecology and natural farming could accelerate inclusive economic growth in India
https://pib.gov.in/PressReleasePage.aspx?PRID=1628285

Sustainable Food Systems Platform for Natural Farming (SuSPNF) India
https://docs.google.com/presentation/d/1ZO-aLQq0BWaVSN4Q0XvVpceCdeo-KP-WR7imiDxbMfk/edit?ts=5faa2db0#slide=id.g9f863e4e98_0_314

WWF Thailand
https://www.wwf-scp.org/thailand/

Recordings

Building climate resilient food systems based on the 10 Agroecology elements (morning session)
https://drive.google.com/file/d/1SI0I7bdjfI1TkUW0JFj_s7glTDFY7q2b/view?usp=sharing

Building climate resilient food systems based on the 10 Agroecology elements (afternoon session)
https://fao.zoom.us/rec/share/1Uk3RQH8198oQbE_ZtCZXux0En2dAoKwOmeQJSEvowDu2TGCOxxoEJg0jdDWBByj.HBu-Pfdjhsvd0QQU