

HLPE Report: Agroecological and other innovative approaches.

Response by PSM on the summary and recommendations

The following comments and issues to be addressed during the CFS policy convergence process are provided by PSM and reflect the structure and content of the HLPE Report recommendations which reflect the findings of the report.

A. INTEGRATION OF AGROECOLOGICAL AND OTHER INNOVATIVE APPROACHES FOR SUSTAINABLE FOOD SYSTEMS (SFS).

1. Agroecology is one approach, among others, to contribute to feeding sustainably a growing population and support countries in achieving Sustainable Development Goals¹ and coexists with a broad range of sustainable agricultural approaches that can contribute to meeting the challenges facing farmers and food systems².
2. The UNGA (December 2017) has formally supported the need for convergence of all the available technologies and their use in integrated solutions that are able to address local needs and societal requirements:

"Recognizing the need to further enhance the linkages between agricultural technology and agroecological principles, such as recycling, resource use efficiency, reducing external inputs, diversification, integration, soil health and synergies, in order to design sustainable farming systems that strengthen the interactions between plants, animals, humans and the environment for food security and nutrition, enhance productivity, improve nutrition and conserve the natural resource base, and attain more sustainable and innovative food systems".³

3. While the importance of innovations in governance and information networking and sharing are recognized there is insufficient focus on new technologies and approaches, and it is disappointing that the HLPE Report has considered several innovative approaches as both 'controversial' and 'possible blockages'. These include:
 - the deployment of modern biotechnologies;
 - the deployment of digital technologies;
 - the use of synthetic fertilizers;

¹ 'The Ten Elements of Agroecology' FAO Council, Rome, 2-6 December 2019 (CL 163/13).

² Further integration of sustainable agricultural approaches, including agroecology, in the future planning activities of FAO. FAO Conference, Rome, 22-29 June 2019 (C 2019/LIM/13).

³ General Assembly resolution Dec 2017 <http://undocs.org/A/C.2/72/L.33/Rev.1>

- biofortification; and,
 - biodiversity conservation strategies.
4. This appears to contradict the FAO Conference (June 2019) which endorsed the Resolution 7/2019 “*Further integration of sustainable agricultural approaches, including agroecology, in the future planning activities of FAO*”⁴ which requested FAO to assist countries and regions towards sustainable agriculture and food systems by:
“Encouraging innovation in agriculture, *inter alia*, through the utilization of relevant and context adapted technology and tools - including ICT and biotechnology”.
5. Agroecology requires a wide array of evolving approaches, contextualized to local conditions, to achieve sustainable agriculture. Key areas and issues that should be addressed during the CFS policy convergence process include:
6. Land:
- Focus on soil health and erosion;
 - Use conservation practices-when and where applicable;
 - Use integrated techniques to combine agro-forestry, grazing, and cropping;
 - Use best practices to maintain soil health, including the 4Rs: applying the right rates of the right nutrient source (including manure and mineral fertilizers) to the location at the right time; and,
 - The use of specific crops that provide wider benefits than just forage such as legumes and other crops that enhance biodiversity or forage mixtures that enhance sequestration potential.
7. Water:
- Efficient use of water recycling strategies, including grey water;
 - Encouraging the use of drought resistant crops in water deficit areas;
 - More efficient irrigation systems and water demand monitoring;
 - Use of traditional and modern water saving/harvesting methods minimizing run off from agriculture into water systems;
 - Sustainable grazing systems that manage soil and water resources; and,
 - Water treatment technologies to protect waterways.
8. Production:
- Encourage the use of crop rotation, better manage land and diversify farmer risk;
 - Promoting integrated farming systems like integrated pest and plant nutrition management and intercropping;

⁴ Op.cit.

- Use precision agriculture technologies to use precisely the inputs needed for a crop and better access to inputs;
- Use information technology to provide locally relevant advice on timing for planting, harvest, pest management; and,
- Promoting the use of modern genetics (both plant and animal) that will enable enhanced performance in different production geographies and systems.

9. Waste:

- Encourage more recycling;
- Develop alternate uses for byproducts such as wood chips;
- Develop training programs for farmers on effective utilization of manure and straw which are not wastes but are raw materials to crop and forage production;
- Encourage measures for resource use efficiency that demonstrate the value to the business if implemented effectively;
- Build local adequate storage for agricultural products with a focus on post-harvest losses;
- Increase efficiency of supply chains to avoid waste with associated rewards for farmers; and,
- Identify on national scale what products are actually wastes and develop alternatives that are either less or recyclable.

10. Agroecology and high productivity are not mutually exclusive. Modern farming and breeding techniques, precision agriculture, social media innovations (in terms of phone 'apps' that provide knowledge and training for example) etc. are already increasingly being taken into consideration and integrated into the concept and understanding of agroecology. From an agroecological perspective, agroecological considerations are an integral part of Integrated Pest Management (IPM). This necessitate interactions, dialogues, partnerships and actions from all actors involved in increasingly globalized food systems with clear data metrics to measure impact and effect. Also it's important to note that certification schemes are one tool amongst many available to the private sector to build sustainable value chains.

B. TRANSITIONING TO DIVERSIFIED AND RESILIENT FOOD SYSTEMS

11. The HLPE Report advances the overarching impression of recommending the transformation of food systems from a current intensive production state (undefined) to the more agroecology state (undefined), which is perceived to address the need for socially equitable food systems. Alternatively however, the ideal pathway is not necessarily from one system to the other system but, rather, a move towards a balanced approach that reflects country context and, as appropriate, national objectives.

12. In the current discourse, agroecology pushes for the elimination of technology and “synthetic” inputs while the more conventional systems are now starting to push technology to reduce inputs and deliver real environmental benefits. The incorporation of the societal and environmental issues into this transition are important and would be the next logical step into the transition to a sustainable food system but, in the context of both CFS’s mandate and the SDG 2 goals, feeding hungry people a nutritious and sustainable diet is key.
13. Where appropriate, support in the form of grants and tax exemptions should be made available for the purposes of investing in practices that reduce agriculture’s impact on the environment and improves the sustainability of the business as a whole, particularly for smallholders and other marginalized groups. Targeted financial support, either through subsidies or incentives, remains a valid policy tool but there must be metrics to ensure that food quantity and environmental quality standards are met to support the payment of subsidies and incentives.
14. Any adaptation of international agreements and national regulations must be undertaken with full recognition/understanding and respect for existing international disciplines on intellectual property and the rules and procedures for how treaties are defined, drafted, enforced, amended, interpreted, and generally operate under the Vienna Convention on the Law of Treaties. This includes the International Treaty on Plant Genetics which is the recognized forum for these discussions, and plants breeders rights.
15. Where a chemical product is on the market and been approved for use, subject to the national regulatory authorities, the conditions and directions for use should be in place and understood so as to mitigate the risk of harm to human health and the environment. Many chemicals are approved for use on the condition of reasonable certainty of no harm. The enforcement of those conditions and directions therefore becomes a key, with as little as necessary to provide for an adequate, safe food supply.

C. THE NEED FOR CONTINUED RESEARCH AND INNOVATIVE KNOWLEDGE GENERATION

16. Establishing and promoting improved practices with regards to agroecology will depend upon the availability of a solid knowledge and evidence base. Research, whilst focusing on this key principle, must also include economic, social and environmental considerations and must also consider the exploitation of new knowledge at the very start of the work to ensure immediate uptake.
17. Priority research should include: resource-efficient, resilient, and high yielding species, integrated land use planning, soil health, climate change adaptation and mitigation

techniques, precision agriculture, water saving and water harvesting that are market focused and provide genuine efficiency savings at farm level.

18. There remains a continued need to build capacity for data collection from best practices among researchers, producers, and traditional communities. But while existing tech transfer mechanisms may be viewed as insufficient, the establishment of new such mechanisms must be cognizant and respectful of existing international disciplines on tech transfer (e.g., WTO TRIPS Agreement; UPOV; ITPGRFA; Nagoya Protocol).

D. STAKEHOLDER ENGAGEMENT

19. Food systems are complex and require a holistic and a coordinated approach from all stakeholders. Agroecology and other sustainable food systems applies to all types of farms, farm sizes and farming systems in all countries where all farmers have made, and continue to make, 'strategic life choices'. This necessitates interactions, dialogues and actions from all actors involved in increasingly globalized food systems. As such, when there is seen to be a need to address power imbalances and conflicts of interest it is necessary to ensure effective consultation mechanisms.
20. There is a need to improve agricultural extension and rural advisory services and improve skills of staff delivering those services to improve provision of technical support and training to both enable farmers and let them make informed decisions. This includes access to financial literacy and business management extension services, particularly for smallholders, to allow producers to become more responsive to consumer choice and marketing options.
21. Gender should be mainstreamed throughout all food programmes, for example by making sure that any certification statements issued to groups and households are issued in the name of women members, not just men. This also includes promoting farming as a desirable occupation for the next generation of farmers and specifically acknowledging that Agroecology will require new talents. It is important to recruit youth to agriculture and facilitate knowledge transfer and innovation among young farmers.
22. Make use of the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT), and the Principles for Responsible Investment in Agriculture and Food Systems (RAI). Increased investment is needed from both private and public sources, including businesses, agricultural ministries, and intergovernmental organizations to facilitate advancement of agroecology and productive agriculture. Support should be provided for the development of sustainable, more efficient, and more inclusive value chains for smallholders.
23. The policy convergence process should not address international trade-related issues. Measures to promote agroecology and other sustainable approaches should be implemented by States consistently with their national and international obligations,

including those relevant to trade issues, as well as with due regard to voluntary commitments under applicable regional and international instruments.

E. PERFORMANCE MEASUREMENT

24. The HLPE Report recommendation to “develop practical, scientifically grounded and comprehensive performance metrics and indicators of agriculture and food systems” is well founded and needed for all sustainable agricultural approaches. All farmers, large and small, are ‘guardians of the soil’ and need the metrics and indicators to do that. Farmers also need to improve yields and production, keep costs down, minimize risks, and continue to be economically viable while providing adequate returns to labour both individually and to the family and business as a whole.
25. Many agroecological systems have a high initial demand for labor and can be more labor intense in general⁵, transaction costs can be high for market and processing opportunities. Agroecological systems can result in a reduction of yields that needs to be compensated by cost savings, higher product prices or other support measures in order to ensure the economic viability of the farms.
26. Apart from basic production and efficiency indicators there is a need to measure GHG emissions efficiency through amount of GHG emissions produced per unit of output produced. Furthermore, in order to measure farm level contribution to sustainable practices, data (already being collected through on-farm surveys and censuses), can monitor the number of hectares of farmland with:
- Minimal soil disturbance;
 - Permanent soil cover;
 - Crop rotations;
 - Buffer strips to reduce soil erosion; and,
 - Water and nutrient management.

⁵ ‘Agroecology as a means to achieve the Sustainable Development Goals’. Swiss National FAO Committee (CNS-FAO), February 2019.