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# High Level Panel of Experts on Food Security and Nutrition (HLPE)

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## **Project Team for the report on**

# Agroecological approaches and other innovations for sustainable agriculture and food systems that enhance food security and nutrition

During its 44th Plenary Session (9-13 October 2017), the CFS requested the HLPE to produce a report on "Agroecological approaches and other innovations for sustainable agriculture and food systems that enhance food security and nutrition", to be presented at CFS46 Plenary session in October 2019.

Based on the call for experts and 255 candidatures received, the Steering Committee of the HLPE has constituted the following Project Team (short bios on the following pages) to work under its guidance and oversight on the preparation of the report:

Fergus Lloyd Sinclair (UK, Project Team Leader)
Mary Ann Augustin (Australia)
Rachel Bezner-Kerr (Canada)
Dilfuza Egamberdieva (Uzbekistan)
Oluwole Abiodun Fatunbi (Nigeria)
Barbara Gemmill Herren (USA, Switzerland)
Abid Hussain (Pakistan)
Florence Mtambanengwe (Zimbabwe)
André Luiz Rodrigues Gonçalves (Brazil)
Alexander Wezel (Germany)

### **Next steps**

Based on the proposed scope of the study, and taking into account the e-consultation results, the HLPE is now working towards an advanced draft (V0) of the report to be submitted to an open electronic consultation. The HLPE will then further elaborate the report, submit the draft to scientific external peer review, prior to its finalization and ultimate approval by the HLPE Steering Committee. The final report is expected to be presented in CFS46 Plenary Session in October 2019.

### Fergus Sinclair (Project Team Leader)



Fergus Sinclair is Leader of Systems Science at the World Agroforestry Centre (ICRAF) headquartered in Nairobi, Kenya in a collaborative arrangement with Bangor University, Wales, UK where he is on the faculty in the School of the Environment, Natural Resources and Geography. He leads the Livelihood Systems Flagship of CGIAR Research Programme on Forests, Trees and Agroforestry. He is also an honorary professor at CATIE (Centre for Agricultural Research and Higher Education) in Costa Rica who awarded him the Medal of Merit in Agriculture in 2006, as well as Honorary Editor of the journal Agroforestry Systems. He holds a first class honors BSc degree in Agriculture from the University of Reading in England and a PhD in the measurement and modelling of agroforestry systems from Edinburgh University in Scotland. His transdisciplinary research career has involved the application of systems methods to agricultural development with emphasis on local knowledge, modelling complex social-ecological systems, understanding trade-offs in impacts of land use on ecosystem service provision and scaling up agricultural innovation

to address the UN Sustainable Development Goals.

### **Mary Ann Augustin**



Mary Ann Augustin is currently Chief Research Scientist at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) within Agriculture & Food. She had appointments early in her career (1979-1988) at various Universities including Universiti Sains Malaysia, University of Newcastle-upon-Type (UK) and Universiti Pertanian Malaysia before joining CSIRO in 1988. She was a Professorial Fellow at the School of Chemistry, Monash University while on secondment from CSIRO (2005-2007). She is an internationally renowned scientist who has published widely (over 235 referred publications) and holds numerous patents. She is known especially for her scientific research and industry translation with impact across three different areas (novel dairy ingredients, microencapsulation and oil separation technologies). Dr Augustin plays an active role in transforming agricultural outputs into food products in sustainable ways. Dr Augustin and her team have received several awards including from CSIRO, the Australia dairy industry and the American Oil Chemists' Society (AOCS). She is a Fellow of the Academy of

Technological Sciences and Engineering (ATSE) and has been Deputy Chair (Agricultural Forum, ATSE) since August 2014. She has been a Committee Member of National Nutrition Committee, Australian Academy of Science since March 2014.

### Rachel Bezner Kerr



Rachel Bezner Kerr is an Associate Professor in Development Sociology at Cornell University. She is a development sociologist with a background in environmental science, anthropology and international development. Dr Bezner Kerr has published over 40 articles and book chapters in journals such as Proceedings of the National Academy of Sciences, World Development and Food Policy. She was given the early Achievement award from the Cornell College of Agriculture and Life Sciences in 2016. For the past 18 years, she has worked with the Soils, Food and Healthy Communities organization in Malawi doing participatory research on agroecological methods to address food security and nutrition. They have worked with over 10,000 farmers in northern and central Malawi. She is a coprincipal investigator in the Singida Nutrition and Agroecology Project in Tanzania, working with 500 farming households alongside Action Aid Tanzania and Nelson Mandela African Institute for Science and Technology (NMAIST). She is also the director of the Community Food Systems minor in Cornell University, which provides engaged learning experiences

for students with organizations working on sustainable agriculture and food justice issues.

### Dilfuza Egamberdieva



**Dilfuza Egamberdieva** is a Research Associate at the Leibniz Centre for Agricultural Landscape Research (ZALF), in Germany and Head of Research group at National University of Uzbekistan. She graduated in biology from the National University of Uzbekistan in 1993 and received her PhD in Agricultural Sciences from the Humboldt University of Berlin, Germany in 2000. She conducted her postdoctoral studies at the Helsinki University of Finland, University of Florence, as well as at the Manchester Metropolitan University, and Leiden University of Netherlands. She has a long-term experience in plant and soil biotechnology research and has collaborated widely with scientists across the world. She served as international project coordinator in her home country topic ranged from improving the soil and crop productivity, food security and sustainable management of natural resources. She is a member of several journals' editorial board, authored three

books, and co-authored over 100 publications related to plant nutrition, agricultural biotechnology and soil fertility. She has close cooperation with ICARDA, the regional program for sustainable agricultural development in Central Asia and Caucasus. In addition, she has been involved in implementation and evaluation of national programs and projects in agricultural research to support sustainable development in the region. She is member of working group of the German Council of Science and Humanities (2017-2018), Global Young Academy and the Asian PGPR Society for Sustainable Agriculture. Her contribution to agricultural biotechnology research has been recognized through TWAS and UNESCO awards.

### Oluwole Abiodun Fatunbi



Oluwole Fatunbi is a Systems Agronomist, specialized in soil fertility and farming systems with a PhD in Agronomy, from University of Ibadan, Nigeria. He currently works with the Forum for Agricultural Research in Africa (FARA), Accra, Ghana, as the Lead Specialist in Innovation Systems and Partnerships, where he coordinates the scientific implementation of various projects including the Sub-Saharan Africa Challenge Program (SSA CP). Prior to joining FARA, he worked at the Agricultural and Rural Development Research Institute (ARDRI), University of Fort Hare, South Africa, as a researcher/ lecturer; at the Total Development International Foundation (TODEV) as Program Manager, at the ARATI Environmental Limited as a soil fertility management consultant; at the Savannah Sugar Company limited as field agronomist; and at the International Institute of Tropical Agriculture (IITA) Ibadan (as a Visiting Research Fellow). He has over 16 years of experience utilizing broad skills in field and laboratory research methodologies in agronomy, farming systems, soil fertility and nutrient management, renewable resources, technology transfer,

innovation systems etc. Dr Fatunbi has facilitated many training sessions on agricultural related subject and has mentored over 12 postgraduate scholars at MSc, MPhill, PhD levels and Post-doctoral levels; he is also an adjunct Professor at the University of Forth Hare, South Africa and has authored or co-authored over 100 publications.

### **Barbara Gemmill Herren**



Barbara Gemmill-Herren, until she retired in 2015, was Delivery Manager for the Major Area of Work on Ecosystem Services and Biodiversity at the Food and Agriculture Organization of the United Nations (FAO). She received her Ph.D. in Ecology from the University of California, and was previously Executive Director of Environment Liaison Centre International, an international environmental non-governmental organization based in Nairobi, Kenya. Within FAO, she built and coordinated a global project on Pollination Services, implemented in Brazil, Ghana, Kenya, South Africa, India, Pakistan and Nepal. Moreover, she was responsible for FAO's work on Ecosystem Services in Agricultural Production, and contributed to FAO's new focus on Agroecology. After leaving FAO, she has been a contributor to the UN initiative on "The Economics of Ecosystems and Biodiversity for Agriculture and Food" — exploring True Cost Accounting in Agriculture — and has led the "Beacons of Hope" initiative of the Global Alliance for the Future of Food. This initiative seeks to develop a framework bringing together evidence and stories of

transitions towards more sustainable food and agriculture systems.

### **Abid Hussain**



**Abid Hussain** is a Senior Scientist in Agricultural Economics Research Institute, National Agricultural Research Centre (NARC) in Islamabad, Pakistan. Dr Hussain is also an Assistant Professor in Department of Applied Economics, PARC Institute of Advanced Studies in Agriculture (PIASA). He obtained his PhD in Economics from the PMAS-Arid Agriculture University, Rawalpindi and MSc (Honours) in Agricultural Economics from the University of Agriculture, Faisalabad, Pakistan. He has more than fifteen years of socioeconomic research experience of mountainous, irrigated, semi-desert & rain-fed ecologies. He contributed to the first draft of 'National Agricultural and Food Security Policy of Pakistan' and in various other national agricultural policy proposals. Dr Hussain has published extensively and presented his research at different international forums. Currently Dr Hussain is the project manager of the Socioeconomic Component of USDA/ICARDA funded project called 'Pakistan Water Dialogue-Diffusion and Adoption through Partnership and Action of the Best Watershed Rehabilitation and Irrigation Practices and Technologies to

help Rural Farmers'. He is also team member in ACIAR-UQ research activity 'Creating wealth in smallholders farms through efficient credit systems in Pakistan'.

### Florence Mtambanengwe



Florence Mtambanengwe is a Professor of Applied Ecology in the Department of Soil Science and Agricultural Engineering at the University of Zimbabwe (UZ) in Harare. She holds a BSc Honours degree in Biological Sciences, an MPhil Science degree in Soil Biology and Fertility, and a PhD in Agriculture (Soil Science) all from UZ. Since graduating, Dr Mtambanengwe has been a member of the academic community contributing immensely to teaching, research and outreach activities within and outside Zimbabwe. Her research interests center around understanding the ecology of farming systems with special emphasis in knowledge management and technology transfer for improved crop productivity, food security and nutrition, participatory action research and gendersensitive approaches to soil fertility and natural resources management and climate change adaptation among smallholder communities. She is also the Zimbabwe Focal person for the Soil Fertility Consortium for Southern Africa (SOFECSA). Dr Mtambanengwe is recipient of a number of scientific awards including being named among the top African

scientists for her contribution to research with impact on Resource Poor Agriculture at the 10th African Crop Science Society Conference held in Maputo, Mozambique, 2011 and was nominated to contribute as a Distinguished High Level Panellist at the 2016 African Soil Seminar running under the theme 'Harnessing Soil Policies for the 2063 and 2030 Agendas' in Nairobi.

### **André Luiz Rodrigues Gonçalves**



André Gonçalves is an agronomist with a PhD in Natural Resources (Cornell University, 2008). He has more than twenty-five years of practical experience working directly with small-scale farmers and grassroots organizations in Brazil. He joined Centro Ecológico, a local NGO in Southern Brazil in 1994, where along these years he helped organize associations of agroecological farmers to set initiatives for marketing organic products, to organize farmers' participatory guarantee systems (PGS), and also to establish the Ecovida Agroecology Network (Rede Ecovida de Agroecologia) in Southern Brazil, which comprises more than 5.000 families of certified organic farmers. He devised and coordinated numerous local development projects to expand agroecological production and agroforestry systems, mobilizing resources from many national and international donor agencies such as the Brazilian Ministry of Environment, Inter-American Foundation (USA), Swedish Society for Nature Conservation (SSNC), World Bank (Development Marketplace 08), among others. Dr Gonçalves also worked as a consultant for several agencies including

the United Nations Development Program (PNUD Brazil); ICRAF; MISEREOR; the Swedish Society for Nature Conservation (SSNC); the Brazilian Ministry of Environment; and the Inter-American Development Bank (BID). He was one of the global authors of the "International Assessment of Agricultural Science and Technology for Development" (IAASTD). He recently coordinated an international study related with resilience and sustainable agriculture assessing agricultural production systems in Brazil, Ethiopia, Kenya, the Philippines, Sweden and Uganda. Currently, Dr Gonçalves is professor at the Instituto Federal Catarinense – IFC where he teaches rural extension, farming practices and agroecology, and he also coordinates the Nucleus of Agroecological Studies (NEA).

### **Alexander Wezel**



Alexander Wezel is currently the Director of the Department Agroecology and Environment at ISARA-Lyon, France. He holds a PhD in Agricultural Sciences and a post-graduate research degree in Natural Sciences. He is an agroecologist and a landscape ecologist. At the beginning of his career he investigated various topics related to land use and resource conservation in the Tropics and Subtropics. In the latter part of his research career, Dr Wezel has focussed more on analysing world-wide interpretations and definitions of agroecology and agroecological practices, as well as on different topics dealing with agroecosystems analysis and management. Currently he deals particularly with the management of biodiversity, agroecological practices, water quality, ecological corridors, and conservation biological control. Before joining ISARA-Lyon, Dr Wezel was engaged at the Universities of Hohenheim and Greifswald in Germany. He also carried out consultancies on a wide range of expertise in Germany, Belgium, The Netherlands, Slovenia and Italy, and for the Food and Agriculture Organisation (FAO) in Rome, Italy. Presently he

is also vice-president of Agroecology Europe. In addition, he is a reviewer for more than 20 different scientific journals and coordinator of an international Masters course in Agroecology.

# The Committee on World Food Security (CFS) and the High Level Panel of Experts for Food Security and Nutrition (HLPE)

The Committee on World Food Security (CFS) is the central international and intergovernmental platform for food security and nutrition, where policies can be designed, interventions can be coordinated, options can be shared and decisions at different levels can be prepared.

The new CFS is inclusive. In addition to member countries, the Committee includes a wider range of organizations working on food security and nutrition, from UN agencies like the International Fund for Agricultural Development (IFAD), the World Food Programme (WFP), the UN Secretary-General's High-Level Task Force on the Global Food Security Crisis and other UN bodies. It also includes civil society and nongovernmental organizations, particularly organizations representing smallholder family farmers, fisherfolk, herders, landless, urban poor, agricultural and food workers, women, youth, consumers and indigenous people.

The High Level Panel of Experts for Food Security and Nutrition (HLPE) was created in October 2009 as an essential element of the reform of CFS, and as the science-policy interface of the CFS, with HLPE reports, analysis and advice serving as a comprehensive, shared, multi-faceted evidence-based starting point for policy debates at CFS.

The **HLPE** aims to help **CFS** to better understand the diversity of issues and rationales when dealing with food and nutrition insecurity. It thrives to clarify contradictory information and knowledge, elicit the backgrounds and rationales of controversies, and identify emerging issues. The **HLPE** organizes a scientific dialogue, built upon the diversity of disciplines, backgrounds, knowledge systems, diversity of its Steering Committee and Project Teams, and open e-consultations.

The **HLPE** is not mandated to conduct new research. The **HLPE** draws its studies based on existing research and knowledge already conducted by various expertise-providing institutions (universities, research institutes, international organizations etc.), and adding value by global, multi-sectoral and multidisciplinary analysis.

**HLPE** recommendations and studies combine scientific knowledge with experiences from the ground, in a same rigorous process. The **HLPE** translates the richness and variety of forms of expert knowledge from many actors (knowledge of local implementation, knowledge based on global research and knowledge of "best practice") that draw on both local and global sources, into policy-related forms of knowledge.

### Key functions of the HLPE, as stated in the CFS reform document (2009)

As directed by the CFS Plenary and Bureau, the HLPE will:

- 1. Assess and analyze the current state of food security and nutrition and its underlying causes.
- 2. Provide scientific and knowledge-based analysis and advice on specific policy-relevant issues, utilizing existing high quality research, data and technical studies.
- 3. Identify emerging issues, and help members prioritize future actions and attentions on key focal areas.

The HLPE is directly linked to the foremost international policy platform for food security and nutrition, the CFS. This ensures the legitimacy and relevance of the studies undertaken, and their insertion in a concrete political agenda at international level.

The HLPE produces its recommendations and advice independently from governmental positions, in order to enrich discussions and debates at CFS. The internal process is crafted to guarantee the scientific inclusiveness and the independence of the HLPE.

The HLPE has a two-tier structure:

- A Steering Committee composed of 15 internationally recognized experts in a variety of food security and nutrition related fields.
- **Project Teams** acting on a project specific basis, selected and managed by the StC to analyze/report on specific issues.

More information about the **HLPE** can be found on its website: www.fao.org/cfs/cfs-hlpe