

UN Environment Management Group Nexus Dialogues



Outcome Document

In 2021, UN Secretary-General António Guterres will convene a Food Systems Summit as part of the Decade of Action to achieve the Sustainable Development Goals (“SDGs”) by 2030 with the intention of inducing collaborative efforts to *Build Back Better*¹, and transform the way society produces, consumes, and considers food, especially in light of the COVID-19 pandemic which revealed sharp inequalities within the agricultural food system, and the risks of zoonotic diseases deriving from unsafe food practices

Against this background, the UN Environment Management Group (“EMG”), in close collaboration with UNU Institute for Integrated Management of Material Fluxes and of Resources (“UNU-FLORES”) organized a **Food System Resilience through Integrated Natural Resource Management** Nexus Dialogue as an independent dialogue of the Food System Summit.

Food systems are simultaneously the cause- and effect of layered variables and interactions, therefore the Nexus Dialogue sought to investigate the accelerating effect of *Integrated Natural Resource Management (“INRM”)*, underlined by Donella Meadows’ systems-thinking framework².

The Nexus Dialogue advances both the Economic (advance the sustainable recovery of food sectors) and Environmental (transforming our relationship with nature) building blocks of **Sustainable Recovery** under the auspices of **Stockholm+50**, and the [Task Group of the One Planet Network and International Resource Panel](#). Additionally, it will share from- and feed into- UNU-FLORES’ projects, including stimulating the Science-Policy Interface, and exchange inputs between the UN system and multi-level stakeholders:

¹ World Food Programme (2021). UN Food Systems Summit 2021, <https://docs.wfp.org/api/documents/48fdf4ecae6d44a68f36f4c23a56c32d/download/>

² Meadows, D. (1999). Leverage Points: Places to Intervene in a System, The Sustainability Institute. http://donellameadows.org/wp-content/userfiles/Leverage_Points.pdf

Key messages noted during the Nexus Dialogue, include:

Representatives from UNU Institute for Integrated Management of Material Fluxes and Resources (**UNU-FLORES**), United Nations Environment Programme (**UNEP**), Sussex Sustainability Research Programme (**SSRP**), Food and Agriculture Organization (**FAO**), United Nations Convention to Combat Desertification (**UNCCD**), International Water Management Institute of CGIAR (**IWMI-CGIAR**), and Wageningen University & Research (**WUR**), spoke on systemic challenges affecting food systems resilience:

- The current food production system is upheld by 1.5 billion smallholders, concentrating power locally; therefore, **science-policy interfaces must translate into planning that is simultaneously top-down and bottom-up (e.g. living labs³), to effectively mobilize the nexus approach on INRM.**
- **Further, top-down food policy may not align consistently in national development plans, as governmental ministries and institutions lack communication with each other, despite working with equal information, yet feeding into different databases.**

Panelists reflected upon successes and lessons learned in adopting an INRM approach in their respective programmes and mandates, as relating to food system resilience:

- With regional FAO initiatives run by multidisciplinary teams operating in various countries, it is **essential for institutions to have a joint knowledge base to ground strategies upon.**
- The EC- Soil Health and Food Mission Board⁴ identified that farmers/producers eschew “to-do lists”, but rather responding best to **quantitative evidence backing that “what is good for the environment, is often very good for business.” Contact between researchers and farmers in Living Labs is essential to produce viable results.**
- UNEP’s Sustainable Rice Platform yielded two major lessons⁵:
 - It is important for the UN system to **translate siloed research into a multi-goal format** with principles, standards, and time-based deliverables, and;
 - **Human empathy is required to communicate science**, without judgement, in order to convene diverse stakeholders (e.g., Syngenta, BASF, Mars, Ben’s Original, etc.)

Panelists also identified capacity gaps – unexplored opportunities to transform food systems for the benefit of poverty eradication, health and climate risk mitigation:

- Food systems refer to the entwined relationships between humans and natural biophysical resources in systems. It is important, therefore, to have trained professionals who can: 1. Listen

³ Bouma J (2021) How to Realize Multifunctional Land Use as a Contribution to Sustainable Development. Front. Environ. Sci. 9:620285. doi: 10.3389/fenvs.2021.620285

⁴ https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/missions-horizon-europe/soil-health-and-food_en

⁵ Sustainable Rice Platform: <http://www.sustainablerice.org/About-Us/>

and understand other disciplines; 2. Discuss clearly with stakeholders, and 3. Present findings and participate effectively in policymaking. **The lack of transferable skills in current professionals in the space (i.e., listening, discussing, and presenting) constitutes a capacity gap.**

- Furthermore, despite the importance of multidisciplinary thinking in INRM for food system resilience, **there is a dominance of water-related researchers, in the Soil- Water-Food-Energy Nexus. The other three domains are missing representation, and therefore capacity.**
- Connecting “the dots” between research and practice, **requires finance** – constituting a capacity gap. In many countries, finance sectors influence the velocity of money and change.

Panelists identified solutions and initiatives, representing excellence in the food system space:

- As sustainable food systems require significant water inputs, **FAO** has developed six principles to base INRM strategies on when coping with water scarcity:
 - Knowledge: Understanding of the causes/effects of water scarcity, i.e., water accounting;
 - Impact: Increasing the productive impact of water;
 - Capacity: Policies and their implementation to be addressed by the appropriate level of governance, with adequate institutional capacity and clear responsibilities;
 - Coherence: Alignment of policies across different sectors to ensure coherence, and;
 - Preparedness: Anticipate and accept change through adaptive management, making use of predictive scenario assessments and no-regret strategies.
- Supporting Land Degradation Neutrality (LDN) in order to combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, **UNCCD** is currently supporting 127 countries⁶ that have committed to setting their voluntary targets of which 104 have successfully set their targets. The scientific conceptual framework for Land Degradation Neutrality (LDN-SCF) that underpins these guidelines comprises five modules, which describe the overall approach to LDN.
- To translate science into actionable ideas for producers, **IWMI-CGIAR** is designing a leadership programme to directly bridge this gap, noting that a forthcoming Water-Food-Energy-Forest-Biodiversity Nexus Initiative seeks to significantly redesign research agendas.

The following recommendations are suggested as actionable next steps for the international community:

- **Storytelling and case studies operationalize the science**, helping it seem more relatable, and as it feeds into policy – achieve greater political uptake and stakeholder acceptance.
- Food resilience and INRM are embedded in the SDGs, but due to a lack of concrete definitions, guidelines, and handbooks to define INRM, conventional agricultural practices are still promoted as supporting SDG 2&3, despite its often negative impacts on SDGs 6, 10, 13, 15, and 16. **It is**

⁶ <https://www.unccd.int/actions/ldn-target-setting-programme>

recommended that the UN system produce a guidance policy document on INRM's efficacy on food systems.

- Furthermore, governments should seek to integrate INRM and the Nexus Approach into existing processes, e.g., national implementation of the SDGs and the Voluntary National Review process.
- Food production (including its socio-political issues, energy needs) is inextricable from land use and degradation, and it is highly recommended that the UN system and policymakers view food policy through the land lens, in order to most appropriately address SDGs influencing poverty, hunger, climate action, and responsible consumption and production.
- Addressing food system resilience and transformation recommends that policymakers appreciate the need for upfront long-term investment and capacity development (e.g., groundwater management, reforestation) despite the time lag between investment and payoff. A stable and sound governance system is needed to provide an enabling environment conducive to long-term innovation funding earmarked for environmental and social sustainability in food systems.

The rationale is set. There is a need for a coalition created among the key UNU institutes, UNEP, IWMI-CGIAR, FAO, and other relevant UN system agencies to engage in interagency collaboration to produce a policy/guidance document which: 1. Lays out the guidelines of a common INRM approach supporting current and future food systems resilience; 2. Support countries in identifying a pathway which ensures compatibility between sustainable consumption and production needs, and; 3. Feeds an actionable narrative and concrete recommendations to be included into the CBD, COP 26, and Stockholm+50 ongoing intergovernmental processes.

We would like to thank the following high-level and expert panellists and organizations for their valuable contributions to the Addressing COVID-19 for the Environment Nexus Dialogue Series.

- Prof. Joseph Alcamo, Professor of Environmental System Science, Director, Sussex Sustainability Research Programme (SSRP)
- Mr. Jippe Hoogeveen, Senior Officer of the Land and Water Division, FAO
- Mr. Stefan Uhlenbrook, Strategic Program Director: Water, Food & Ecosystems, IWMI CGIAR
- Prof. Johan Bouma, 2017 Alexander Von Humboldt Medal, Professor Emeritus, Wageningen University & Research (WUR)
- Mr. James Lomax, Food Systems and Agriculture Adviser, Ecosystems Division, UNEP, Seconded to the UN Food Systems Summit Secretariat
- Ms. Birguy Lamizana, Senior Project Officer, UNCCD-Bonn

Special thanks to UN EMG and UNU-FLORES teams for organization and coordination:

UNU Institute for Integrated Management of Material Fluxes and of Resources

- Dr. David Malone, Rector of United Nations University and Under-Secretary-General of the UN
- Dr. Edeltraud Guenther, Director, UNU-FLORES



UNITED NATIONS
UNIVERSITY

UNU-FLORES

Institute for Integrated Management
of Material Fluxes and of Resources



UNITED NATIONS
**FOOD SYSTEMS
SUMMIT 2021**



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Office for the Environment FOEN

- Dr. Serena Caucci, Associate Programme Officer, UNU-FLORES
- Dr. Nora Adam, Partnerships & Liaison Officer, UNU-FLORES
- Ms. Binte Md Salleh, Atiqah Fairuz, Communications and Advocacy Lead, UNU-FLORES
- Dr. Lulu Zhang, Associate Programme Officer, UNU-FLORES
- Ms. Zeynep Oezkul, Research Assistant, UNU-FLORES
- Ms. Isabella Georgiou, PhD Researcher, UNU-FLORES

UN Environment Management Group Secretariat

- Mr. Hossein Fadaei, Head of the Secretariat, EMG Secretariat
- Ms. Nina Arden, Nexus Dialogue Sr. Consultant, EMG Secretariat
- Mr. Michael Williams, Sr. Communications Consultant, EMG Secretariat
- Ms. Fatema Johara, Administrative Assistant, EMG Secretariat