



Science and Innovations for a Sustainable Food System

Preparing for the UN Food Systems Summit 2021



Background

The aim of the UN Food Systems Summit¹ is to help Member States and stakeholders maximize the co-benefits of a food systems approach across the entire 2030 SDG Agenda and meet the challenges of climate change. As a key contribution to the Decade of Action, the objectives of the Summit are to generate momentum, expand the knowledge base, and share experiences and approaches to unleash the benefits of sustainable food systems for all people. The Summit will also offer a catalytic moment for global public mobilization and actionable commitments to invest in diverse ways to make food systems inclusive, climate adapted and resilient, and support sustainable peace.

The Scientific Group for the Summit is responsible for ensuring the Summit brings to bear the foremost scientific evidence and helps expand the base of shared knowledge about experiences, approaches, and tools for driving sustainable food systems that will inform the future. The work of the Scientific Group ensures the robustness and independence of the science underpinning dialogue of food system policy and investment decisions. The Scientific Group will inform the Summit's content, recommended outcomes, clarify the level of ambition and commitments that will emerge from the Summit. It is expected to engage with various research constituencies and coalitions around the world to bring them into the effort, and to give feedback and input on Summit evidence document, recommendations, and distilled declaration.

Content and Objectives of the Workshop

The objective of the workshop is to facilitate the review of options of evidence-based actions with a focus on science, technological and institutional innovations that can facilitate transformation toward a sustainable food, nutrition and agricultural system. The focus of the workshop shall be on challenges in the food system that science and innovations might address, and on a set of relevant but controversially discussed potential strategies and actions for solving food systems problems, which sciences – natural sciences and social sciences - may assist to resolve. These include for instance:

- the lack of action to end hunger; unhealthy diets and obesity;
- biotechnologies, digitalization, agro-ecology;
- food and agriculture's role in climate change and biodiversity;
- trade policy; subsidies and food pricing; food waste;
- reforms of organizations, institutions, and governance, incl. the interface among science and policy of food system.

Opportunities, constraints and risks of innovations as well as their ethical aspects shall be considered and discussed. As the workshop shall contribute to the emerging agenda of the UN Food Systems Summit from scientific perspectives, issues of implementation actions, priorities, and sense of urgency shall also drive the workshop deliberations.

Workshop materials

- Scientific Group's papers on Food Systems concept and five Action Tracks papers as well as the note on defining Healthy Diets, as well as
- [Food Systems Summit Briefs](#) prepared by partners of the Scientific Group
- Emerging proposals for actions to be considered by the Food Systems Summit shall be discussed.

Recent publications by the Pontifical Academy broadly relating to the theme also serve as a background, for instance:

- Science and Survival. A focus on SARS-CoV-2 and connections between large-scale risks for life on this planet and opportunities of science to address them. acta26. Proceedings of the Plenary Session 7-9 October 2020
- Transformative Roles of Science in Society: From Emerging Basic Science Toward Solutions for People's Wellbeing. Proceedings of the Plenary Session 12-14 November 2018
- Food Loss and Waste Reduction. Proceedings of a joint workshop of PAS with Rockefeller Foundation Scripta Varia 147, Vatican City, 2020
- Food Safety and Healthy Diets, Proceedings of a joint Workshop of PAS with Global Alliance for Improved Nutrition, 12-13 September 2018, Scripta Varia 141 Vatican City, 2018

- Science and Sustainability. Impacts of Scientific Knowledge and Technology on Human Society and its Environment. Proceedings of the Plenary Session 25-29 November 2016

End Notes

1 The text is based upon the invitation to the Scientific Group and the established TOR from the Office of the UN Secretary General.