

Joachim von Braun, Chair Scientific Group for the UN Food Systems Summit

Notes for Opening Remarks to Plenary Session 1 (July 8, 2021) of Science Days for the UN Food Systems Summit

Thank you, Magdalena Skipper, for moderating us. We appreciate the strong focus on food systems science by NATURE journals under your leadership.

DG QU Dongyu, thank you for the excellent partnership with FAO.

I note the strong collaboration with Ismahane Elouafi, Chief Scientist, and Maximo Torero, Chief Economist.

Amina Mohamed, gave a strong speech, placing science and innovation on the action agenda for the Summit.

Agnes Kalibata, thank you for your great leadership of the Food Systems Summit.

Dear colleagues from around the world, I welcome you on behalf of the Scientific Group of the UN FSS, a group of 28 noted scientists, appointed to serve the science base of the UN Food Systems Summit. Special welcome to practitioners and civil society actors, because without you we relevance of science is not tested.

All sciences – natural sciences and social sciences, basic sciences and applied sciences – can and must deliver the innovations needed for food systems transformation. We respect indigenous, traditional, and citizen based knowledge systems and we cooperate well with the indigenous communities and learn together. Given the culturally sensitive nature of all matters related to food, science needs to be equally sensitive, and not isolate from society. Science needs always to earn the trust of society.

Today, I am pleased to share with you the key elements of a draft strategic paper prepared by the Scientific Group coordinated by the three vice-chairs of the Scientific Group, Kaosar Afsana, Professor Public Health, BRAC University, Bangladesh; Louise Fresco, President Wageningen University & Research Netherlands; and Mohamed Hassan, President of The World Academy of Sciences for the advancement of science in developing countries, and myself. It draws on about 50 key background papers prepared for the purpose.

Based on a comprehensive food systems framework, we have identified actions for seven science-driven innovations we consider essential for food systems transformation and the Summit.

The first set of innovations focuses on ending hunger and increasing the availability and affordability of healthy diets and nutritious foods. We have done the analyses what it costs to end hunger: needed are an additional 40 to 50 Billion US\$ per annum until 2030. It can be done and must be done. We estimated that the true costs of the food system including environmental and health costs are about 3 times the market costs.

The second set of innovations centers on de-risking food systems and strengthening resilience. About 25% of GHG emission come from the food system. Science offers innovative solutions for negative emission farming and climate-resilient food systems. Policy innovations are needed for better social protection and nutrition programs. The Summit is also taking place at a time when armed conflicts are creating more hunger around the world. This problem studied by broad based social sciences and the human rights research community needs to be addressed by the Summit.

The third set of innovations revolves around overcoming inefficient and unfair land, credit, and labor arrangements, and on facilitating empowerment and rights of women and youth. The role of science includes finding ways to facilitate protection and inclusive transformation of smallholder farming around the world in partnership with farmer organizations.

The fourth set of innovations focuses on bioscience innovations for improving peoples' health, enhancing systems' productivity. These include use of genomics, alternative protein sources and much more. Skills and data are key for the translation of these innovations in practice. Access to technologies must not be hindered or monopolized, but democratized. Here sustainable, circular Bioeconomy should be considered as a frame for the food systems transformations.

The fifth set of innovations centers around productive soils, water and landscapes, and protecting the agricultural genetic base and biodiversity.

The sixth set of innovations focuses on sustainable aquatic foods, and protection of coastal areas and oceans. Food systems are not just terrestrial systems.

And the seventh set of innovations focuses on engineering and digital innovations for efficiency and inclusiveness of food systems and empowerment of rural communities. It will be essential

to make digital technologies more affordable and accessible. Digital access is emerging as a human right.

Let me emphasize that these innovations -- policy innovations, institutional innovations, and technology innovations -- are all closely connected and actually need to be pursued in an integrated approach.

Going forward, we make three more specific calls for action.

First, on finance: we call on governments to allocate at least 1% of their agricultural GDP to food systems science and innovation, with the perspective of exceeding that target. And for financing the whole FSS actions, innovative finance approaches are needed. We propose to consider reallocating agricultural subsidies to sustainable development initiatives, initiating a new “end hunger” fund, and initiating “end hunger” bonds. The Development Banks have a key role.

Second, noting that investments in capacity for science and innovation need to expand, we call for more attention to strengthening international and local research capacities, developing more inclusive, transparent, and equitable science partnerships. The CGIAR has an important role.

And third, noting that science and policy need a strong framework for constructive and evidence-based interaction on food systems, we call for innovating and strengthening the science-policy interface at national and international levels, with a strong independent voice for science.

I have shared with you key messages from our draft strategic paper – I encourage you to visit our website <https://sc-fss2021.org/> to read the full paper and to comment as indicated there by July 15 as we move forward to the Pre-Summit.

The Summit needs follow up. The lead for that should be with FAO and the Rome based Food organizations. I encourage them to call on the global science community also after the Summit. With strong emphasis on investing in innovation the SDGs will be achieved.

Thank you very much.