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Briefing on the UN Food System Summit (UNFSS)

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Meeting of Agricultural Chief Scientists (G20-MACS): The role of science, technology and innovation in sustainable food systems to improve food security and safety

June 15-16, 2021

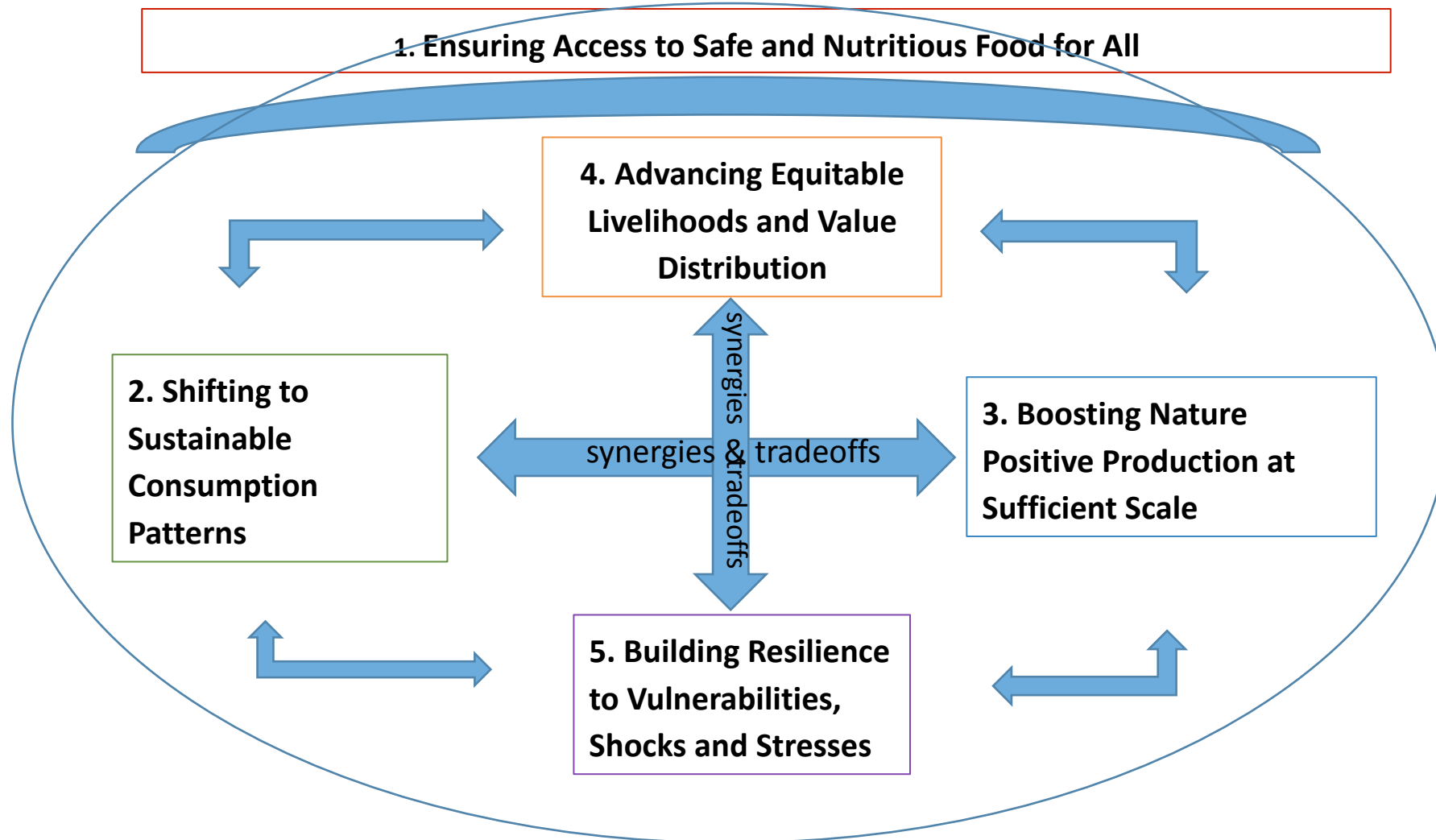
TOR of Scientific Group from UN Leadership

“The Scientific Group is responsible for

- ensuring that the Summit brings to bear the foremost scientific evidence from around the world 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 systems policy and investment decisions.
- It also informs the content of the Summit, its recommended outcomes, and the asks and commitments that emerge from the Summit.”

https://sc-fss2021.org/wp-content/uploads/2020/11/Terms_of_Reference_web.pdf

Food Systems – 5 Action Tracks



Scientific Group on key FSS issues

<https://sc-fss2021.org/materials/scientific-group-reports-and-briefs/>

Food Systems – Definition, Concept and Application for the UN Food Systems Summit

Healthy diet: A definition for the United Nations Food Systems Summit 2021

AT1 - Ensure Safe and Nutritious Food for All

AT2 - Shift to Sustainable Consumption Patterns

AT3 - Boost Nature Positive Production

AT4 - Advance Equitable Livelihoods

AT5 - Build Resilience to Vulnerabilities, Shocks and Stress

More to come (modelling tradeoffs; true price of food; etc.)

FSS Briefs: partnering with science communities on key issues (academies of sciences, professional associations, etc.)

about 40 papers

A. Modelling Food Systems Transformations

B. Science, Technology, and Innovation Actions

C. Actions for Equity, Inclusiveness and Nutrition and Health

D. Actions for Sustainable Resource Use and Foresight

E. Investment, Finance, Trade and Governance actions

F. Regions and Countries (Africa, LAC, Asia, Europe, China, India, Russia...)

<https://sc-fss2021.org/materials/fss-briefs-by-partners-of-scientific-group/>

Synergies and Trade-Offs – Modelling Insights

		OUTCOMES				Quantitative studies
		Target 2.1 Target 2.2		Target 2.3	Target 2.4 and envt. SDGs	
		Food availability (quantities)	Food access (prices)	Smallholder income	Environmental outcomes	
Demand side	Reducing waste and overconsumption					1, 4, 5, 6, 7
	Adopting healthy diets					4, 5
	Adopting sustainable diets					1, 2, 3, 6, 7
Trade	Improving trade integration					1, 5, 6
Supply side	Increasing agricultural productivity					1, 2, 3, 4, 5, 6, 7
	Reducing food losses					1, 4, 5, 6, 7
	Improving agricultural practices and resource management					1, 3, 4, 7
	Protecting and reallocating resource to other SDGs					1, 3, 5, 6, 7

blue = positive impact, red = negative impact, orange = ambiguous impact.

Source: Hugo Valin, Thomas Hertel, Benjamin Bodirsky, Tomoko Hasegawa, Elke Stehfest (2021). Achieving Zero Hunger by 2030: A Review of Quantitative Assessments of Synergies and Tradeoffs amongst the UN Sustainable Development Goals. Report for Scientific Group FSS

TRUE COST OF FOOD

Food valued through market prices.

Market prices do not take into account...

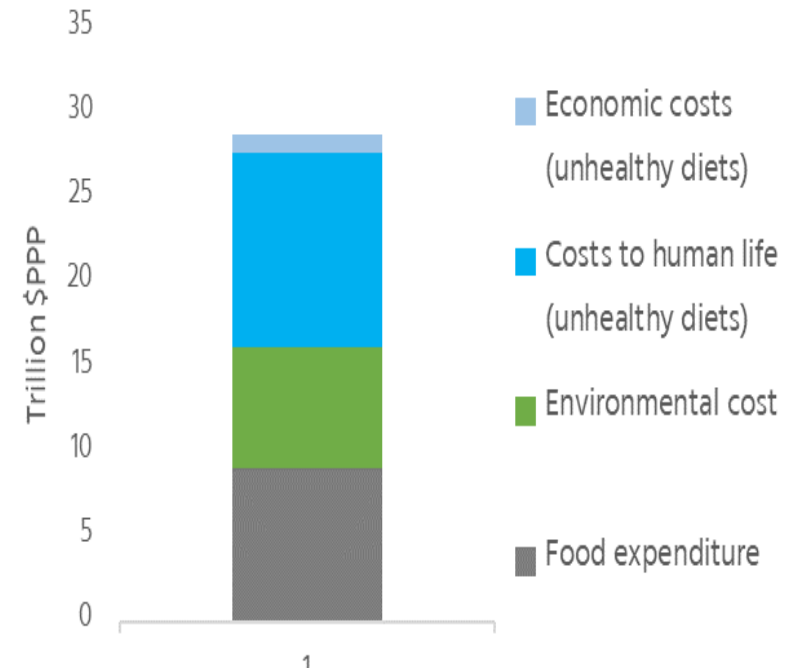
- benefits of affordable or healthy food
- costs of unhealthy or unsustainable food

Business' profits not reflect value created/
reduced for society

GDP of food system does not reflect
contribution to welfare

>> Sustainable & healthy food is too expensive

>> Unsustainable & unhealthy food is too
cheap



9 trillion / 28 trillion

S. Hendriks et.al. 2021. The True Cost and True Price of Food. A Brief for the Scientific Group UN FSS

Emerging Priorities for FSS Action Areas

- I. Nourishment: eliminate hunger and all forms of malnutrition by 2030; overcome armed conflicts that cause hunger. Available and affordable appropriate nutrition for everyone;
- II. Reduced impact on Climate and Biodiversity, facilitating the production for availability and affordability of healthy diets. Reduce food waste and food losses.
- III. Improved livelihoods and wellbeing: One Health approach in food systems; jobs, social protection.
- IV. Empowered communities: rights of minorities, indigenous people, women and youth;
- V. Resilience strengthened: resilient to economic, climate, conflict and pandemic shocks;
- VI. Science, Knowledge and Innovation: basing food system decision making on best available science; access to essential knowledge, technology, and data; generate innovations_

With big diversity of priorities in world regions, countries, and among stake holders (Gov., NGOs, business, sciences)

Science and Innovation Proposals by Scientific Group for FSS

1. A bundle of context specific policy and institutional **innovations to end hunger and increase availability and affordability of healthy diets** and nutritious foods (this bundle partly draws on the 6 innovation actions below)
2. Policy and institutional innovations to **de-risk food systems** and strengthen resilience, in particular for climate-neutral, climate-positive, and climate-resilient food systems
3. Policy and institutional innovations for efficient and fair **land, credit, and labor arrangements**, and to facilitate inclusion of and empowerment and rights of women and youth
4. **Bioscience innovations** for peoples' health, systems' productivity, and ecological wellbeing
5. Technology-based and policy innovations for productive **soils, land and water, and to protect the agricultural genetic base and biodiversity**
6. Policy and technology-based innovations for sustainable **fisheries, aquaculture**, and protection of coastal areas and oceans
7. **Digital innovations** and engineering for efficiency and inclusiveness of food systems and rural communities

Science policy options for food systems innovation

1. Food systems science and policy need a stronger framework for follow up to FSS and the long term.
2. At the national level, food systems research policies to be integrated into national development policies; countries develop their own food systems strategies.
3. Explore options for a new, inclusive, global **Science-Policy Interface** (SPI) for a sustainable food system that will assist in an evidence-based follow up to the Summit (Why? because of food system complexity; data and digital opportunity, science sharing, effective participation of emerging economies' science, connection national with global SPI)



Organized by the Scientific Group of the



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- **Assess science-based options** to achieve more healthy diets and more efficient, inclusive, resilient and sustainable food systems.
- **Explore the frontiers of science** to catalyze food systems transformation to achieve SDG2.
- **Critically assess risks, opportunities, and controversies** in science and innovation for food systems, with attention to equity and to resilience.
- Engage in dialogues to **strengthen the science–policy interface** so that scientific evidence can best inform policy and policy in turn can better use science to support the transition to sustainable, inclusive and resilient food systems.

A registration link will be circulated shortly.

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