**Food Security**

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Agriculture is crucial for (i) economic growth, (ii) food security, (iii) poverty reduction and (iv) environmental sustainability, since

i. Agriculture is the single largest employer providing livelihoods for 40% of the global population.

ii. To feed a global population of 9bn by 2050 requires a projected 70% increase in food production, though managing waste and changing consumption may reduce this. However, food security is more than production.

iii. Farmers represent one-third of the world’s population and one-half of its poor. GDP growth from agriculture generates at least twice as much poverty reduction than any other sector.

iv. Agriculture is a problem in relation to the three Rio conventions from 1992 (climate, biodiversity, desertification) but can also provide solutions.

The recommendations are built on the session presentations and discussion and two major documents: Planet under Pressure Rio+20 Policy brief ‘Food Security for a Planet under Pressure’, and ‘Achieving Food Security in the Face of Climate Change’ (report from the Commission on Sustainable Agriculture and Climate Change).

**Main recommendations**

The vision of the UN Secretary-General’s High-level Panel on Global Sustainability states that “The long-term vision of the panel is to eradicate poverty, reduce inequality and make growth inclusive,
and production and consumption more sustainable, while combating climate change and respecting a range of other planetary boundaries.”

In order to implement this vision, it is necessary:

- To recognize that agriculture and the food system are essential for economic, social and environmental sustainable development.
- To meet the challenge of achieving global food security by taking a food systems approach involving all segments from production to consumption.
- To reaffirm the right to food, which necessitates the global community to prioritize sustainable intensification of food production, access to local and global markets and reduction of waste throughout the supply chain.
- To understand fully how to measure, assess and reduce the impacts of production on the natural environment including climate change, recognizing that different measures of impact (e.g. water, land, biodiversity, carbon and other greenhouse gases, etc) may trade-off against each other, and that impacts from land management in one location can have impacts on people elsewhere.
- To address the need for adaptation to the changes in climate and other planetary boundaries; such changes will significantly complicate the achievement of food security for all. It is essential that future developments will not push beyond the planetary boundaries.
- To challenge the science community to take a transdisciplinary approach in addressing the nexus of food, water and energy and engage stakeholders with a participatory approach in agenda setting and ensuring that the results are communicated in a way that is conducive to implementing change based on the research results.
- To underline the importance of linking local development issues and the limits of planetary boundaries by fostering regional collaboration as a platform for sharing local-appropriate solutions.

Strategic recommendations

- Food security and sustainable agriculture should be integrated into global and national policies for green growth, addressing the climate adaptation and mitigation aspects of agriculture. National strategies for sustainable development should prioritize sustainable intensification of food production recognizing the importance of the agriculture and food sectors for the economy of many of the least developed countries. Partnership with the private sector will be central to implement such strategies.
- Ensure that food security is addressed in the context of Intergovernmental Panel on Climate Change (IPCC) and the UN Framework Convention on Climate Change (FCCC) as well as the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and the UN Convention on Biodiversity (CBD). Agriculture is part of the problem but must also become part of the solution.
- Recognize and understand that land management has impacts both near and far, and ensure that there are appropriate governance structures to minimize the export of negative environmental impacts.
• Reshape food access, and consumption patterns to ensure basic nutritional needs are met, and to foster healthy and sustainable eating patterns worldwide. It is important that the public and private sector as well as civil society are engaged in this endeavor.

• Significantly raise the level of global investment in sustainable agriculture and food systems in the next decade. Funding should reflect the significance of scientific knowledge for sustainable agriculture for economic growth, poverty reduction and environmental sustainability.

• Create comprehensive, shared, integrated information systems that encompass human and ecological dimensions to track changes in land use, food production, climate, the environment, human health and well-being worldwide. Focus should be on the implementation of scientifically sound sustainability indicators.