

UN FOOD SYSTEMS SUMMIT 2021
COALITION ON SUSTAINABLE PRODUCTIVITY GROWTH
FOR FOOD SECURITY AND RESOURCE CONSERVATION

CONCEPT NOTE
(Max 800 words)

Title of coalition:

Coalition on Sustainable Productivity Growth for Food Security and Resource Conservation

Main objective of the coalition:

Agriculture faces the daunting challenge of producing more food to meet the nutrition needs of a growing world population while at the same time dealing with climate change and ever-tightening natural resource constraints. This challenge is made even more complex by the fact that unless safe and nutritious food is affordable and reliably accessible, food insecurity and malnutrition will persist. In addition, unless farmers and farm workers make decent incomes, poverty will grow, and farming will fail.

Increasing agricultural productivity growth is one of the only ways to solve this multi-objective optimization problem. However, delivering on the potential of agricultural productivity growth requires a holistic, systems approach to resource conservation and efficiency. Siloed efforts to increase agricultural productivity often focus on single objectives and can have unintended consequences on other objectives. A coalition of action focused on *sustainable* productivity growth will help break silos and deliver on agricultural productivity growth's potential to accelerate progress across multiple objectives.

The Coalition for Sustainable Productivity Growth for Food Security and Resource Conservation (the SPG Coalition) will accelerate the transition to more sustainable food systems through agricultural productivity growth that optimizes agricultural sustainability across social, economic, and environmental dimensions. The SPG Coalition will advance a holistic approach to productivity growth that considers impacts and tradeoffs among multiple objectives.

This effort will directly advance SDGs 2.3 and 2.4, both of which call for increasing agricultural productivity. It has impacts on SDGs 1, 2, 8, 13, 15 and 16.

Science based evidence to prioritize this coalition (scientific references):

The importance of efficiency gains and productivity growth for meeting agriculture's multiple objectives is supported in a breadth and depth of scientific literature, including for example:

- Searchinger et al. (2019): *"Increased efficiency of natural resource use is the single most important step toward meeting both food production and environmental goals."*
- Folberth et al. (2020): *"This study shows that about half the land currently needed to grow food crops could be spared if attainable crop yields were achieved globally and crops were grown where they are most productive."*
- The EAT-Lancet Commission (Willet et al., 2019) found that food systems transformation requires sustainable intensification, including *"at least a 75% reduction of yield gaps on current cropland."*
- The 2020 State of Food Security and Nutrition in the World (FAO, 2020): *"Addressing low productivity in food production can be an effective way of raising the overall supply of food, including nutritious foods, by reducing food prices and rising incomes, especially for the*

poorer family farmers and smallholder producers in low-income and lower-middle-income countries, like farmers, pastoralists and fisherfolk.”

- The UNFSS Scientific Group Paper on Achieving Zero Hunger (Valin et al. 2021):
“improvements in agricultural productivity, in particular total factor productivity (related to all production factors), offers an opportunity to simultaneously lower the pressure on the environment and increase farmer income by decreasing the input requirements.”

---FAO et al. 2020. *The State of Food Security and Nutrition in the World 2020*. Rome, FAO.

---Folberth et al. 2020 *The global cropland-sparing potential of high-yield farming*. *Nature Sustainability* 3 (4)

---Searchinger et al. 2019. *Creating a Sustainable Food Future, World Resources Report*

---Valin et al. 2021. *Achieving Zero Hunger by 2030, A paper from the Scientific Group of the UN FSS*

---Willet et al. 2019. *Food in the Anthropocene, Lancet* 2019; 393: 447–92

Mechanisms of implementation (Global to National levels):

Coalition members commit to advancing, individually and in collaboration with other members, sustainable productivity growth through a holistic approach that considers impacts and tradeoffs among multiple objectives. Possible actions include:

- *Link productivity growth goals with resource conservation and climate goals*
- *Link conservation and climate goals with productivity goals*
- *Advance, implement, and promote Climate Smart Agriculture and Forestry*
- *Join or otherwise participate in the Agriculture Innovation Mission for Climate.*
- *Advance progress in growing the nutritional productivity of agriculture*
- *Advance progress in conceptualizing and measuring sustainable productivity growth across objectives*

Strategic partners (members, private sector, civil society, academia):

- **Member-State Initiator:** USA
- **Other members listed on UNFSS website**

Monitoring and Evaluation (clear quantifiable indicators and targets linked to SDGs)

Coalition members are responsible for implementing actions, tracking progress, and reporting on achievements and lessons learned. Countries are responsible for reporting on progress meeting the Sustainable Development Goals, including the six goals impacted by the Coalition for Sustainable Productivity Growth: SDGs 1, 2, 8, 13, 15 and 16.