

**World Bank**  
**Submission to SBSTA on Agriculture**

**Background**

A sound approach to agriculture is crucial to address the critical challenges of global food security, rural development and poverty alleviation. Ensuring food security under a changing climate makes the challenge even more difficult. Smallholder farmers in developing countries are particularly vulnerable to the impact of climate change and need to be at the heart of sound policies. Therefore, food security, adaptation and mitigation need to be considered in an integrated manner – and it is timely for SBSTA to consider issues related to agriculture in relation to climate change.

Given the growing demand for agricultural products, the agriculture sector faces unique challenges because adaptation and mitigation efforts to address climate change cannot come at the cost of reduced productivity. Governments need to put in place policies that support multiple objectives for enhanced food productivity, adaptation and mitigation. World Bank experience has demonstrated that there is much to learn from developing countries in their efforts for early action. These efforts have provided the evidence for relevant practices, in particular with regard to climate resilience. Climate-smart agriculture offers opportunities for a triple win by promoting improved agricultural technologies – such as mulching, integrated nutrient management, conservation agriculture, agroforestry, improved pasture management – and innovative practices such as improved climate information, early warning systems and insurance for climate related risks.

Identification through SBSTA of a body of knowledge relating to agricultural technologies, that improve upon existing practices and share knowledge that promote climate smart agriculture in different country contexts could serve as a useful way forward to build capacity in addressing the challenges of climate change in agriculture. Additional guidance under SBSTA could serve as a valuable source of information for the design of policies and action plans that promote food security and climate change adaptation and mitigation.

In the above context, the following aspects could be considered in establishing a SBSTA agenda:

- **Assessment of synergies and trade-offs** between climate change adaptation and mitigation in agriculture taking into account available knowledge of science practice, and co-benefits.
- **Identification of prevailing agricultural practices** and their relationship to agricultural productivity and food security objectives that will increase climate resilience. Analysis of baseline agricultural production practices facilitate understanding of business as usual agricultural practices and help promote standardized approaches to assessing agriculture technologies and practices that are applicable to wider geographic contexts.
- **Recognition of technologies that promote GHG removals** by sinks (e.g., agronomic practices, nutrient use, tillage, and residue management); restoration of degraded lands; improved land use and agro-forestry in agricultural systems relevant for different climatic zones.
- **Recognition of technologies and practices that lower GHG emissions** such as use of bio-energy from agricultural feed stocks (e.g., crop residues, energy crops, and bio-plastics) that also reduces potential emissions from fossil fuels. Several allied activities such as improved water management and livestock management lower emissions from agricultural lands use. This should also include recognition of activities that reduce the use of fossil fuels, management practices (e.g., method of fertilizer application) that promote resource use efficiency are of significance for lowering emissions from the sector. Additionally, assessment of technologies that conserve soil and lower the risk of

soil erosion and loss of soil organic carbon contribute to both adaptation and mitigation.

- **Promotion of widely applicable methodologies for measuring GHG emissions** from agriculture to provide a basis for further integration of agriculture in the UNFCCC mechanisms and regulatory procedures and that are relevant to wide variety of stakeholders such as governments and non-government organizations, business, academia, and farming community.
- **Development of methodologies and guidance that lower the transaction costs of monitoring, reporting and verification** of improved agricultural technologies.
- **Identification of measures that promote capacity** to adopt climate smart agriculture practices that will improve productivity, resilience and mitigation efforts.
- Analysis of **linkages between sustainable practices in agriculture and other land use categories** to implement solutions for food security, adaptation and mitigation in a region or a landscape.