

Submission by the United States of America

Issues Related to Agriculture

5 March 2012

Draft decision [-/CP.17], Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, invites Parties and accredited observer organizations to submit to the secretariat, by 5 March 2012, their views on the issues related to agriculture as referred to in paragraph 69 of the draft decision. Paragraph 69 reads: “Requests the Subsidiary Body for Scientific and Technological Advice to consider issues related to agriculture at its thirty-sixth session, with the aim of exchanging views and the Conference of the Parties adopting a decision on this matter at its eighteenth session”. The United States welcomes the opportunity to submit, pursuant to paragraph 70 of FCCC/AWGLAC/2011/L.4, its views.

A consideration of issues related to agriculture under SBSTA should reflect SBSTA’s mandate, as indicated by Article 9 of the Convention. This could include:

1. Providing assessments of the state of the science on the effects of climate change on agricultural production and food security, informed by the latest IPCC assessments;
2. Assessing the adequacy of current climate change data, information, and analysis systems to support decision-making in the agricultural sector;
3. Assessing the effectiveness of mitigation and adaptation measures taken in the agricultural sector;
4. Identifying innovative technologies and know-how in the agricultural sector and providing technical advice on means of promoting the development and transfer of these technologies;
5. Providing technical advice on agriculture research needs and opportunities for international cooperation on research and development;
6. Providing technical advice on human and institutional capacity building needs in the area of agriculture, food security and climate change in developing countries.

The Conference of the Parties, in adopting a decision on agriculture at its eighteenth session, should focus on the following broad topics that fall within SBSTA’s mandate:

- Adaptation and mitigation synergies
- Improved efficiency, productivity, and resilience
- Safeguarding food security and livelihoods
- Capacity building
- Research needs

- Technology transfer

In this regard the United States offers its views on the following specific mitigation and adaptation topics as well as some procedural next steps.

Adaptation

Agriculture is highly vulnerable to climate variability, and climate change including higher temperatures, changing rainfall patterns, and more frequent extreme events like droughts and flooding that threaten to reduce yields and increase the occurrence of crop failure. Climatic stresses could have real consequences on food production, affecting the yields of staple food crops, resulting in scarcity and threatening people's livelihoods particularly in developing countries.

The SBSTA could serve as a useful forum for sharing information and providing technical advice on adaptation strategies in the agricultural sector, noting linkages with the Cancun Adaptation Framework and the Nairobi Work Programme (whose work areas are to be reconsidered at SBSTA 38). In addition, the Adaptation Committee will begin meeting this year and the SBSTA's consideration of issues related to agriculture should inform, and be informed by, the work of the Adaptation Committee.

We believe that the SBSTA should welcome input from research organizations, institutions such as the World Bank and FAO, the private sector, and nongovernmental organizations.

Specifically SBSTA should focus on the following adaptation issues:

1. Improving conservation technologies and practices to improve resilience to climate variability and change;
2. Improving availability of and access to information on agronomic yield variables, drought, climate variability, and extreme events;
3. Improving cultivars to adapt to climate variability and change and resulting ecosystem changes/disruptions ;
4. Assessing what needs to become part of technology transfer pipeline and how this information can be effectively communicated adaptation;
5. Promoting the transfer of relevant adaptation technologies and implementation of adaptation practices.

Mitigation

Agriculture currently produces roughly fourteen percent of global annual greenhouse gas emissions. In the coming decades, agriculture will be faced with the twin challenges of not only

reducing its contribution to greenhouse gas emissions but meeting a dramatic increase in global food demand.

A wide range of practices exist to reduce greenhouse gas emissions, increase carbon sequestration, develop renewable energy sources, and improve energy efficiency on farms and forest lands. These opportunities take many forms. Some are simple, like shifting cultivation from conventional tillage to reduced- or no-till. Some will involve new and advanced technologies such as precision nutrient management, wind power, and anaerobic digesters. To fully realize the potential for greenhouse gas mitigation from agricultural and forest lands, we will need to go beyond what is available now to develop new farming methods and energy conversion technologies. We will also need to improve extension and education efforts. A SBSTA forum on agriculture could identify initial priorities and should be linked with other efforts under the Convention to address mitigation, especially efforts to address deforestation and forest degradation, and improve technology transfer.

Specifically, SBSTA should focus on the following mitigation issues:

1. Assessing the effectiveness of technologies and practices on carbon sequestration, CO₂ emissions, CH₄ emissions, and N₂O emissions and nitrogen use and fixation;
2. Identifying GHG measurement and estimation techniques including sampling, use of modeling, and remote sensing ;
3. Linking efforts to reduce emissions from deforestation and land degradation through improved efficiency and productivity improvements;
4. Assessing what needs to become part of technology transfer pipeline and how this information can be effectively communicated on mitigation;
5. Promoting the transfer of relevant mitigation technologies.

Next steps

The United States believes that technical expertise should be brought to bear on agriculture. Specifically, in 2012 between the SBSTA meeting and COP 18, we recommend that an expert technical meeting on adaptation occur. This meeting should coordinate with related work underway through the Adaptation Committee and the Nairobi Work Programme, and could begin with a consideration of the following five areas:

1. Providing a forum for discussion of the state of the science on the effects of climate change on agriculture production and food security, informed by the latest IPCC assessments;
2. Reviewing the adequacy of current climate change data, information, and analysis systems to support decision-making in the agricultural sector;

3. Considering the effectiveness and cost of adaptation measures taken in the agricultural sector;
4. Providing technical advice on agriculture research priorities and needs, opportunities for international cooperation on research and development, and on the ways and means of supporting endogenous capacity building in developing countries. The successful efforts of the Global Research Alliance on Agricultural Greenhouse Gases could serve as a model for enhanced scientific cooperation;
5. Providing technical advice on human and institutional capacity building needs in the area of agriculture, food security and climate change in developing countries.

SBSTA should report to COP 18 on the outcome of this technical meeting. Furthermore, in 2013 we recommend that a workshop on mitigation occur. Finally, we note that it would be helpful for SBSTA to welcome the participation of the IPCC as it addresses agriculture in its Fifth Assessment Report.