Submission by Uruguay

Inputs on the current state of scientific knowledge on how to enhance the adaptation of agriculture to climate change impacts while promoting rural development, sustainable development and productivity of agricultural systems and food security in all countries, particularly in developing countries, taking into account the diversity of the agricultural systems and the differences in scale as well as possible adaptation co-benefits. These inputs are provided in response to the call for submissions per the document FCCC/SBSTA/2013/L.20 paragraph 2.

Uruguay welcomes the opportunity for submission of its points of view on the relevant issues of adaptation in the agriculture and acknowledges the progress made in during SBSTA 38.

General aspects

Several multilateral institutions and Parties have stressed the relevance of agriculture to development. Agriculture contributes to economic growth, poverty reduction and the protection of the environment. Agriculture is the source of income for the majority of the rural poor and it is also a source of national growth, a provider of opportunities for private investment, and the basis of agriculture-related industries.

Climate change affects the productivity of the agro-ecosystems, food availability and food accessibility. It has the potential to impact severely on rural development and, generally, on sustainable development. Its impacts are both short and long term, due to more frequent and intense extreme weather events (droughts, floods, etc.) and to changing temperatures and precipitation patterns.

Countries as Uruguay, with natural resources of high aptitude for agricultural production during the whole year (grains, meet, milk, etc.) have their economical development based on agriculture and food and fibers exports, contributing to food security. In recent years the agriculture sector has increased its productivity a lot, but at the same time, sensitivity to climate variability and climate change has also increased, and damages and losses due to extreme weather events are more significant, making the sector and the economy more vulnerable. For this type of countries, climate change threatens the very basis of our livelihoods. This is the reason why climate adaptation has been defined as highly strategic by the government of Uruguay, including also actions to cope with present interannual and seasonal variability, to which we are not well adapted. Our croplands, pastures and forests are progressively being exposed to threats from increased climatic variability and, in the longer run, to climate change.

Adaptation to climate change in agriculture is a huge challenge, in particular for developing countries, and a set of different actions are needed to adjust to the physical changes in the climate and its impacts. These changes in climate are already underway and it is necessary to prepare for the risk of bigger changes in the future.

IPCC says in AR4 V II that “adaptation to climate change is already taking place, but on a limited basis. Many adaptations can be implemented at low cost, but comprehensive estimates of adaptation costs and benefits are currently lacking (high confidence). There are significant barriers to implementing adaptation. These include both the inability of natural

systems to adapt to the rate and magnitude of climate change, as well as technological, financial, cognitive and behavioural, and social and cultural constraints. There are also significant knowledge gaps for adaptation as well as impediments to flows of knowledge and information relevant for adaptation decisions".

There is a long catalogue of practices to adapt to the impacts of climate change and natural climate variability (e.g. El Nino-Southern Oscillation). However, a successful implementation requires local research, validation, technical assistance, and the combination of the new knowledge with the valuable traditional knowledge and experience of local farmers and technical advisers. An enabling environment is needed to bridge science and technology with policies and stakeholders, and this means strengthening institutional adaptive capacity.

A 'wait and see' or reactive approach is inefficient and inadequate, so Uruguay has started the implementation of adaptation policies in agriculture, working on research, extension and incentives to small-holders with the support of the Adaptation Fund and the World Bank .

Promoting the effective development and transfer of environmentally sound technologies is critical in enabling developing countries to pursue their objectives for adaptation in the framework of sustainable development. As per article 4.5 of the Convention, the developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly to developing countries, to enable them to implement the provisions of the Convention. Success on adaptation depends on factors related to biology, ecology, technology, institutional capacities and management regimes. Countries with limited economic resources and insufficient access to technology will be least able to keep up with the changes.

Among the key challenges will be to assist developing countries, as they are generally constrained by limited economic resources and infrastructure, low levels of technology, poor access to information and knowledge, and limited empowerment and access to resources.

Elements to contribute to prioritisation of actions in SBSTA

There is a lot to do to fill the gaps in knowledge already existing for adaptation at local and national level. Adaptation has not been a high priority of research and development within national and international centers until the last years. So there are many areas that deserve close attention from science and technology, in support of policies and decisions by farmers.

In order to facilitate the work of SBSTA Uruguay proposes to structure it and focus it on a few main thematic areas, such as the following four:

(1) Assessing climate impacts and improving future climate scenarios:

- Characterization of the short and long term social, economic and environmental impacts of climate change on farmers (in particular small-holders) and in the economy as a whole, especially on developing countries.

- Identification of the main factors that promote climatic sensitivity and reduce the adaptive capacity of the agro-ecosystems and strategies to decrease vulnerability and build that capacity.
- Improving understanding of the mechanisms behind past and present climate trends, as well as projected ones, which is critical for developing sound adaptation policies.
- Generation of regional climatic scenarios, supported by the new IPCC AR5 scenarios.

(2) Enhancing research and technology transfer to farmers

- Undertake technology needs assessment for the implementation of national adaptation strategies.
- Identification, assessment and deployment of technologies and good practices to reduce vulnerability and build adaptive capacity.
- Improvement of natural resources management to enhance adaptive capacity of agriculture (land, water, soil, biodiversity, plant breeding, pest and diseases control, etc.
- Barriers to access (e.g. Intellectual property rights).
- Sharing of lessons learned.

(3) Developing information for decision making and risk management

- Information for better decision making and risk management, including seasonal forecasts and early-warning systems oriented to policies and farmers.
- Improve weather monitoring capacities.
- Evaluation of climate risk and mapping in different agricultural production and systems. Design of and support for climate index-based insurances that are accessible to farmers.

(4) Building capacities and means for implementation

Creation of the means and endogenous capacities for implementation of adaptation policies at national level in developing countries, based on Art 4.5 of the Convention, including: financing, technology transfer and access to environmentally sound technologies.

Regional and global networks, institutions and programs (as PROCISUR in South America, CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), and others) have a key role to play in providing practical technological responses to farmers to facilitate adaptation. In this context we think that a very interesting and promising progress has been initiated in the Technology Executive Committee (TEC), as the policy arm of the Technology Mechanism of UNFCCC, whose goal is to sharpen the focus, step up the pace, and expand the scope of environmentally-sound technology development and transfer in a highly qualitative way. The Nairobi Work Program should also be taken into account.

SBSTA should discuss how to harmonize the different institutional efforts, looking for synergies and avoiding duplication.

In terms of co-benefits, the main ones to identify at this stage of SBSTA work are those linked to promoting rural development, sustainable development, poverty alleviation, and productivity of agricultural systems and food security.

Given the multiple relations of climate change adaptation and agriculture, Uruguay proposes to explore how to support the creation of national adaptation research and technology transfer plans and networks. Establishing and maintaining international adaptation research networks to link together key researchers and assist them in focusing on national research priorities could be a very important contribution to developing countries. Developing science and technology in support of implementing national adaptation plans requires significant financial and human resources; this is why the Convention´s principle of common but differentiated responsibilities is of central importance. Developed country Parties and Annex II Parties should play a key role in the development and transfer of technologies to developing countries, including the development of endogenous capacities in the field.

Uruguay believes that an in-session workshop at SBSTA 39 on the issues mentioned above and open to all participants would be a great opportunity to share Parties and relevant organizations views and experiences, contributing to the discussion and understanding of the different positions. Thus, it would facilitate the SBSTA process ahead. Uruguay would be honored, for example, to present its national policies on grasslands management to build adaptive capacity in the livestock sector. In addition, Uruguay would like to suggest inviting panelists from IPCC (to present advances from the 5th AR), FAO and CCAF´s program of CGIAR, among others, to provide state of the art technical inputs to enrich the discussion by Parties.