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Organisation des Nations Unies pour l'alimentation et l'agriculture
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Our Ref.: Your Ref.:

Submission by the Food and Agriculture Organization of the United Nations (FAO) on modalities and procedures for a new market-based mechanism[1] (paragraphs 83 and 84), in response to the invitation as outlined in paragraph 85 the *Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention*.

Agriculture is a significant contributor of anthropogenic GHG emissions to the atmosphere. Crops and livestock also contribute 10-12% of total emissions (more than transport), while deforestation—largely driven by agricultural pressures around the world—adds an additional 15-18%. Agriculture alone is in any case the largest overall contributor of non-CO2 anthropogenic emissions. In addition, in many developing countries, agriculture represents an important economic sector and contributes to total national emissions accordingly. Finally, the agricultural sectors have an important mitigation potential both by reducing their emissions and by increasing carbon sinks. It has been shown that an important part of this mitigation potential would be cost effective, provided that there are proper incentives to induce the necessary changes.

Therefore, to enhance the cost-effectiveness of, and to promote, mitigation actions, the potentials of the agricultural sectors have to be captured.

To achieve these potentials, FAO notes that there is a need for appropriate, dedicated new financial mechanisms, designed in such a way as to be able to take into account the specificities of the agricultural sectors. These include recognition of the multi-dimensional benefits of several mitigation strategies in agriculture, which re-enforce food and energy security at local to regional and global level; support adaptation via increased ecosystem resilience; reduce risk by providing rural employment opportunities; provide a fundament for sustainable development[2].

The new and dedicated mechanisms should be analyzed and discussed in larger detail within the Specific Work Program on Agriculture that FAO is promoting in a separate submission on its views on agriculture.

Suggested guidelines for enhanced mitigation in agriculture include; 1) a characterization of baselines that take into account the need for agriculture activities to supply food to a growing population in coming decades; 2) Sectoral approaches including new regional or landscape-level methodologies for agricultural activities; 3) Extension of current CDM methodologies to include agro-forestry activities; and any other activity resulting in above- and below- carbon sequestration on cropland and pastures; 4) Simplified MRV systems that allow easy aggregation of many small-holder based activities and in general simplification of reporting; and 5) Creative market mechanisms that create much larger demand volumes for carbon credits from agricultural activities.

1. Determination of the baseline to assess emission reductions

In designing such mechanisms to enhance and promote mitigation actions in agriculture, one should first share common principles for estimating baseline scenarios. Assessing future production and emissions "business as usual" in a baseline shall take into account country and region specific demands to produce

[1] Views on implementation for agriculture, forestry and fisheries.
[2] FAO 2010. Climate Smart Agriculture. Policies, Practices for food security, adaptation and mitigation

more food to achieve, maintain food security, and guarantee the right to food, also taking into account the impact of climate change.

In order to increase food security and to satisfy a growing population's needs both in quantity, diversity and quality, the production of the agricultural sectors in developing countries is to increase. "Business as usual", an increase in production will translate in a corresponding increase of emissions in the same proportion.

Second, mitigation actions shall be assessed as a deviation from the baseline. Such deviation from the baseline can be achieved, for example, by efficiency gains in food production and food chains. They can also be achieved by the reduced mobilisation of new land areas for agriculture.

2. Design mechanisms which can accommodate numerous and varied participants

Agricultural mitigation often takes the form of small emissions reductions spread over a large and highly varied group of farmers, fishers, herders, forest managers etc. Together with a lack of data and institutional capacity, these factors combine to result in high MRV costs relative to benefits for individual producers.

To enhance the cost-effectiveness of, and to promote, mitigation actions in agriculture the mechanisms to be devised shall facilitate the involvement of a large number of participants using collective or area based mechanisms such as programmatic and/or sectoral CDM or sectoral mechanisms.

3. Recognize the mitigation potential of a the full range of agricultural activities and agro-ecosystems

Important components of the mitigation potential of the agricultural sectors include enhancing soil carbon sequestration; agro-forestry; restoration of degraded lands; reduction of source emissions of non-CO2 gases via dedicated crop and livestock management. Many mitigation activities are extremely cost-effective compared to mitigation in other sectors, provided that there are proper incentives to induce the necessary changes.

Therefore it is important that the full range of GHG emission reduction and sink enhancement activities in agriculture be fully recognised and implemented in future financial mechanisms where agriculture can play a significant contributing role. FAO proposes to consider all cropland and grassland management mitigation activities as pertaining to actions in agriculture.

This possibility in now being envisaged even under KP for the CDM. CMP 7 requested the Subsidiary Body for Scientific and Technological Advice to initiate a work programme to consider and, as appropriate, develop and recommend modalities and procedures for possible additional land use, land-use change and forestry activities under the clean development mechanism. This work, whatever the final decision under KP could be of use for new mechanisms to be designed under a future agreement, taking into account legal differences between the two instruments.

In particular, specific agro-ecosystems with large mitigation potential that merit renewed attention include:

Organic soils (Peatlands), constituting 3 % of land area but store 30 % of the global soil carbon. They are drained for forestry, bio energy crops, mining and agricultural production. Drained peatlands, covering a mere 0.3 percent of the global land surface, are responsible for some 6 percent of total global anthropogenic

Grasslands, covering about 20% of land area, account for a large component of stored soil C, and have a vast mitigation potential through restoration of degraded lands, also contributing significantly to food security via appropriate livestock management choices.

The importance of both agro-ecosystem as carbon sinks, the massive impact on global emissions and their specific characteristics merit special attention in the design of financing mechanisms of climate change mitigation.

4. Use MRVs adapted to the specificities of the sector

Measurement, reporting and verification, either national or internationally controlled, shall ensure consistency across sectors and for land-based activities, while being adapted to the specificities of the agricultural sector. They shall allow for the use of proxies and default values adapted to the agricultural sector including for land use. The methodologies to be used shall be adapted to allow aggregated area-based, region-based, project-based measurements or local / international food chains approaches integrating land use change impact. This aggregated approach shall reduce transaction cost and be intended to cover wide number of small holders.

Recognizing that much progress has been made by the UNFCCC in setting new regulations for benchmarking and sectoral approaches, as well as for development of PoAs and simplified methodologies for market-based mechanisms, FAO supports the application of these new tools to agricultural sector activities.

5. Creative market mechanisms that create much larger demand volumes for carbon credits from agricultural activities

Actual CDM projects to enhance above or below carbon sinks, afforestation being the only recognised activity, generate tCER or lCER that face the problem of low demand in large regulatory markets. CMP 7 has requested to initiate a work programme to consider and, as appropriate, develop and recommend modalities and procedures for alternative approaches to addressing the risk of non-permanence under the clean development mechanism.

FAO proposes that a new or revised market mechanism should address how to provide larger demand volumes for temporary CERs -- generated in agricultural activities and other land uses -- compared to regular credits. Such discussions should be a key part of the activities of the SBSTA working program on agriculture that FAO has proposed in a separate submission.