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Potential Expansion of Methane to Markets to Include Methane Emissions from Rice Production and Enteric Fermentation

Discussion Paper

1. Purpose

This paper provides a summary on recent research regarding potential opportunities for Methane to Markets to expand into new areas of the Agriculture sector; specifically, methane emissions from enteric fermentation (i.e., ruminant livestock) and rice cultivation. This paper also provides suggested next steps for the Steering Committee's consideration.

2. Background

At the 2007 meeting in Beijing, the Steering Committee agreed that, given the magnitude of methane emissions from enteric fermentation and rice cultivation, the Partnership should investigate whether Methane to Markets could play a role in implementing reduction strategies in these sectors. In order to help accomplish this goal, the ASG commissioned a short paper entitled "*Non-manure Agriculture Methane Emission Sources and Mitigation Options*" to inform the Subcommittee. This paper was also developed to provide a primer to the Steering Committee on the sources of these emissions, potential mitigation options, and an overview of the key organizations working on these issues worldwide. This white paper has been circulated to the Agriculture Subcommittee and to the Steering Committee in advance of the Mexico meeting for review.

It is also important to point out that the UNFCCC's Ad-Hoc Working Group on Long-term Cooperative Action (AWG-LCA) recently developed a technical paper titled "*Challenges and opportunities for mitigation in the agricultural sector*," which was issued on 21 November 2008.[1] This paper has a slightly broader scope and provides an overview of greenhouse gas (GHG) mitigation practices including all agriculture sub-sectors and other GHGs, not just methane. The paper identifies relevant policies and measures as well as the relative mitigation potential in each sector. Given its relevance, this paper was also circulated to the Steering Committee and Subcommittee prior to this meeting along with this discussion papers as background. The AWG-LCA will have a workshop in early 2009 (March or April) to discuss the topics highlighted in this report.

3. Key Observations

Based on the overview papers commissioned by the ASG and the UNFCCC, a few observations are apparent and should be considered in the Steering Committee's discussion:

- Methane to Markets has historically been focused on reducing GHG emissions via the capture and use of biogas. Methane emissions from enteric fermentation and rice cultivation cannot be captured and used. However, reduction options from these sources are possible and could be

[1]An electronic version of the report can be found at: http://unfccc.int/resource/docs/2008/tp/08.pdf

marketed as carbon credits under the Clean Development Mechanism (CDM) or a similar offset mechanism. Nonetheless, a major barrier to developing CDM or offset projects for methane reductions from enteric fermentation and rice cultivation is the lack of sufficiently-detailed emissions baselines for projects and measurement techniques.

- Implementation of some methane reduction strategies—through voluntary "best practices" outside of an offset strategy and as a part of general environmental stewardship program with multiple environmental and societal benefits—is possible.

- The organizations and experts for these sectors are quite different from those currently represented on the Agriculture Subcommittee and from each other. Therefore, if the Methane to Markets Partnership were to engage in these areas, it is suggested that new subcommittees be created to address these sectors.

- There are many existing initiatives and organizations working to understand methane emissions from rice cultivation and enteric fermentation and develop best practices. Methane to Markets would need to work with these organizations to identify activities that would not replicate ongoing efforts in this area. Methane to Markets might wish to consider ways in which the expertise of the Partnership, such as providing training and implementing projects, might be of use in these sectors.

- Many of the ongoing initiatives in the rice and enteric sectors have research as the central focus. Methane to Markets might be able to provide a practical approach to outreach, training and capacity building, but would likely not be an appropriate venue to support additional research.

- The Steering Committee might wish to further investigate how Methane to Markets can provide value in this arena. Two ideas, based on the information available to date, are: 1) A concerted effort in promoting development of detailed inventories for rice cultivation and enteric fermentation or 2) Developing programs and projects that have multiple environmental and social benefits such as improved nutrition, better managed pasture, and healthier animals.

4. Next Steps

While the ASG commissioned white paper and recent UNFCCC technical paper provide valuable information, additional thought and interaction with key organizations working in the rice cultivation and enteric fermentation arena might be necessary to effectively identify the areas where Methane to Markets could play a beneficial role. There seems to be a resurgence of interest in this area, and Methane to Market's engagement might be well-timed to work with other stakeholders to develop a portfolio of value-added activities that would feature implementing GHG mitigation measures that focus on improving nutrition, environment, and health.

5. Items for Consideration and Decision

Does the Steering Committee wish to direct further work to identify how Methane to Markets could play a role in the enteric fermentation and rice sectors?

Does the Steering Committee wish to have a representative(s) from Methane to Markets attend the UNFCCC AWG-LCA to observe and report back to the Steering Committee on potential opportunities for engagement?

Does the Steering Committee wish to have the ASG, interested members of the Steering Committee and/or the Agriculture Subcommittee prepare a proposal on how Methane to Markets