The World Bank

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT INTERNATIONAL DEVELOPMENT ASSOCIATION

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CDM Executive Board c/o UNFCCC Secretariat P.O. Box 260124 D-53153 Bonn Germany

Subject: Response to the EB call for public inputs as indicated in the CDM Executive Board work programme (EB67, annex 1) - "Information note on Top-down development of standardized approaches for determining methane emissions in rice field under AMS-III.AU"

Honorable Members of the CDM Executive Board,

We welcome the opportunity to provide inputs on the "Information note on top-down development of standardized approaches for determining methane emissions in rice field under AMS-III.AU".

(a) Are the proposed approaches for estimating the regional/country specific default values for methane emissions in rice field practical and appropriate? Which option should be selected? Only for the baseline scenario, or for both baseline and project scenarios? Are the values reasonable and conservative?

The approach for adopting regional/country specific default values for methane emissions in rice fields is reasonable and practical and is a cost effective alternative to the monitoring and measurement of these emissions in rice fields.

Option 2 (default values for both baseline emissions and project emission) is reasonable as it permits the use of default emission reduction factor based on the monitoring of rice production activities/practices. By not requiring the measurement of methane emissions, the option 2 lowers the transaction costs of monitoring and measurement in methane emission reduction projects in rice that are most likely comprise large proportion of marginal and small farmers.

Option 1 (default values for baseline emissions) may have limited use unless procedures for assessing project emissions or adoption of research/published values relevant to a project are allowed along with this option. This option could be an alternative to the option 2, if the project participants use the data from monitoring of project emissions or from research/publications relevant to a project context. In this context, guidelines on use of research and published data on methane emissions in an agro-ecological zone may need to be outlined to facilitate the use of such data to a program or project context.

The use of IPCC default values is appropriate for promoting robust and simplified GHG accounting framework for methane emissions in rice production. The default values could be revised and updated with the availability of updated data.

(b) In case Option 2 (i.e. default emission reduction factor) is selected, what kind of additional conditions or monitoring requirements if any should be included in the methodology to ensure that emission reductions are actually realized through the implementation of the project activity?

It is suggested that the simplified monitoring procedures or reporting requirements to ascertain the rice production technologies/practices be included in the monitoring methodology so as to facilitate the use of default values are included in the methodology.

Considering that specific factors (e.g., soil type, cultivars) can influence the magnitude of methane emissions, it will be useful to outline procedures for adopting them as per the characteristics of production system. The scaling factors (e.g., water management, organic amendments, cultivar, and technologies) and revised data based on future updates to IPCC 2006 guidelines or official reports published by country could be adopted.

(c) Shall the cultivation period (days) be necessarily monitored, e.g. in logbooks? Is it possible to determine valid and conservative default values for the rice cultivation periods applicable for countries/regions or for certain and given conditions of cultivation practices?

The monitoring requirements for adoption of default values need to be simple and cost effective. Therefore, it is **not** necessary to monitor the cultivation period or rice production practices specific to each farmer as it is costly, cumbersome and difficult to implement.

The data on rice cultivation/production period from official reports on rice production at regional/national level could be permitted under the methodology. In this context, it will be useful to stratify the data requirements of the methodology (1) at program or project (data collected from official rice production reports at sub-regional/regional/national level); and (2) at farm(er) level using surveys.

- (1) Program/project level data requirements could Include: (i) average length of one crop period/two or more crops (in days); (ii) water management practices and frequency; (iii) use of organic amendment by type (t/ha) etc.
- (2) Farm(er) level data and monitoring requirements need to be minimal and cover data specific to the farm level such as (i) area of farm under rice production (one crop/two or more crops) in ha; (ii) soil type; (ii) rice cultivar grown (iii) conformation of practices implemented to reduce methane emissions. This information could be either collected either from revenue records or from farmers.
- (d) Possible default values for the amount of organic amendments other than rice straw (i.e. t/ha application of compost, farm yard manure or green manure)

The default values for organic amendments (compost, farm yard manure or green manure) in t/ha could be adopted from the data on organic amendments reported in official

sources/surveys. If the data on organic amendments spans a range of values, weighted value based on the proportion of area covered under each category of amendment in a sub-region/region/country could be adopted to program/project context.

(e) Are there other approaches for determining methane emission factor that should be assessed? If any, please provide further justification on the proposed approach(es).

In situations where data on parameters of methane emissions in rice cultivation are available for regions/country contexts from published sources using DNDC (DeNitrification-DeComposition) biochemical process models or other relevant models and data could be permitted as alternatives to the default values of the methodology or as complements for use as parameters in the equations of the methodology, provided project participants are able to demonstrate that the data are applicable to a program/project/region by confirming to the applicability conditions/criteria of the methodology.

Although this note focuses on the default value for methane emissions, it is useful to also adopt similar default approach for estimation of nitrous oxide emissions (N_2O) emissions for activities targeting efficient use of organic amendments (guidelines on organic amendments covered under methane emissions could also be useful for guidelines on default values for nitrous oxide emissions) and inorganic fertilizer use.

The methodological approach for default values for GHG emissions in rice production could be organized in parts (a) methane emissions and (b) nitrous oxide emissions so that project participants could target the GHG mitigation activities that address water management to reduce CH_4 the emissions; and efficient fertilizer use to reduce N_2O emissions, respectively, or CH_4 and N_2O in an integrated manner to lower the GHG emissions from both the sources under a common methodology.

We will be glad to provide further clarifications and additional inputs as necessary.

With kind regards,

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