Information note

Top-down development of small-scale methodologies using standardized approaches for transport

I. Background

1. The transportation sector is considered by the Executive Board (hereinafter referred to as the Board) of the clean development mechanism (CDM) to be a priority sector for further work on methodological issues[1]. It is also an under-represented sector in terms of the number of registered projects.

2. CMP.6 requested the Board to develop standardized baselines, as appropriate, in consultation with relevant designated national authorities (DNAs), prioritizing methodologies that are applicable to least developed countries (LDCs), small island developing states (SIDS), Parties with 10 or fewer registered CDM project activities as of 31 December 2010, and underrepresented project activity types or regions, inter alia, for energy generation in isolated systems, transport and agriculture.

3. The Board has included the top-down development of small-scale methodologies using standardized approaches for transport in its Management Plan (MAP) as one of its products for 2012.[2] Subsequently, it was also included in the workplan of the Small-Scale Working Group 2012[3] as one of the tasks for the SSC WG in 2012.

4. The SSC WG, with the assistance of an external expert, considered an approach based on development of representative driving cycles of a region or a country and recommended to invite public comments (the call was launched at EB 68). One set of comments had been received commenting on, inter alia, the representativeness and conservativeness of the default values provided, as well as the cost effectiveness of the proposed approach in contrast to the current approach in the methodologies.

II. Analysis and conclusion

5. The SSC WG explored the possibility of standardizing baselines in the transport sector via an approach that would use the typical drive cycle for different vehicle categories in various countries or regions. Such a typical drive cycle in combination with performance tests on the baseline and project vehicles would then be used to establish both the baseline and the project emissions.

6. The SSC WG firstly attempted to provide default values for the drive cycle of two wheelers in different regions. However, due to paucity of reliable data available in this area and taking into account public comments, the SSC WG concluded that it was not possible to provide accurate broadly applicable default values and providing such values at a disaggregated level may require significant resources while still not achieving accuracy for individual projects. The typical drive cycle would not only widely differ between countries (e.g. differences in fuel prices and income levels), but also between cities and rural areas and could even differ within cities (traffic conditions). Also the typical drive cycle for a specific vehicle type would depend on its use (e.g. different patterns for commuters compared to couriers). The SSC WG then considered whether it would be feasible to propose the drive cycle approach as an alternative optional way to establish baseline and project emissions in existing methodologies. However, because of the indirect way of establishing fuel savings the

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[1] <http://cdm.unfccc.int/EB/051/eb51_repan11.pdf>

[2] <http://cdm.unfccc.int/Reference/Notes/gov/info_note32.pdf>

[3] <http://cdm.unfccc.int/filestorage/5/1/G/51GDZYIXLOU9R3K6AWHN80CVES4TFJ/eb66_repan04.pdf?t=RnN8bTllbWxhfDAIQDKHmlNzWLZmnBZpipn3>

SSC WG was of the opinion that the approach is likely to be more difficult for DOE verification as compared with the existing approaches.

7. Thus, the SSC WG agreed not to continue the work of developing standardized approaches in the transport sector using the drive cycle approach. Instead, it agreed to focus on continuous improvement and simplification of existing transportation methodologies through other means, taking into account input from various stakeholders. The table below includes issues raised by different stakeholders, actions already taken by the SSC WG and potential areas for further work.

Table 1: Issues raised by stakeholders relevant to SSC transport methodologies and follow-up actions

No.	Issue raised by stakeholders	Stakeholder recommendation	Action taken already	Proposed action for the SSC WG
1.	High monitoring frequency (and therefore related costs) for some parameters (e.g. load factor) that do not change drastically from year to year	Reduce monitoring frequency of these parameters		Identify parameters and methodologies where this may be the case, and explore proposing reduced frequency of monitoring those parameters
2.	Additionality demonstration	Create positive list of types of transportation projects that can be considered automatically additional	Guidance for demonstrating automatic additionality has been added in AMS-III.C using the market penetration rate (<5%). AMS-III.AP includes details on barriers specific to the transportation sector, as well as automatic additionality based on penetration rate	Identify other types of transportation projects that could be considered automatically additional, as well as the relevant methodologies. Explore developing a positive list for transportation technologies and incorporate automatic additionality criteria for these project types in the relevant methodologies
3.	Lack of data for transportation systems in developing countries	Proposed establishing a global data base for transportation systems (e.g. vehicle populations and usage modes, efficiencies and emissions factors etc.). It was also suggested that this should be tied to the training of experts in transport area, who could help generate the data	In AMS-III.S, a new option has been included to allow the use of manufacturer's specifications as an option to determine baseline fuel efficiency of new baseline vehicles. (EB 60) This simplifies data requirements	Identify any areas/methodologies where data requirements can be reduced, (e.g. AMS-III.AA where no revisions have yet been made). Identify data sources applicable to developing country transportation sectors and any default factors that may be useful /appropriate.

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4.	The requirement for fixed or constant routes is not reasonable in many applications		The requirement for "fixed routes" has been removed in AMS-III.S (EB 60). AMS-III.AA has no requirement for fixed routes. When AMS-III.AP was expanded to passenger vehicles, no requirement for ¨fixed routes¨, was included (EB 66)	
5.	Some vehicles (e.g. tricycles) have a very long lifetime in developing countries. Difficult to demonstrate using existing procedures			Review the procedures for the demonstration of lifetime of vehicles within relevant methodologies

No.	Issue raised by stakeholders	Stakeholder recommendation	Action taken already	Proposed action for the SSC WG
6.	Lack of detailed guidance in some methodologies, in particular AMS-III.C., making them difficult to apply	Improve guidance	Further guidance has been included in AMS-III.C., in particular specific procedures for calculating baseline, project emissions and monitoring parameters. (EB 61) In AMS-III.S, further guidance has been provided regarding "level of service". (EB 60) Also, in the new methodologies, i.e. AMS-III.AT, AMS-III.AP and AMS-III.BC, more detailed procedures and guidance are provided	Identify areas where additional details/guidance could be of use
7.	Need for simplified procedures	Simplify procedures in transportation methodologies		Identify areas/methodologies where procedures could be simplified
8.		Refine applicability criteria of AMS-III.C to allow vehicle manufacturers as well as fleet owners to use the methodology	This change has been made to AMS-III.C.	

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History of the document

Version	Date	Nature of revision(s)
01.0	13 September 2012	EB 69, Annex # To be considered at EB 69.
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