# REPORT OF THE TWENTY-SIXTH MEETING OF THE SMALL-SCALE WORKING GROUP

UNFCCC Headquarters, Bonn, Germany 15–18 June 2010

### RECOMMENDATIONS BY THE SSC WG TO THE CDM EXECUTIVE BOARD

### A. Opening of the meeting and adoption of the agenda

- 1. The Chair of the Small-Scale Working Group (SSC WG), Mr. Peer Stiansen, opened the meeting.
- 2. The agenda was adopted as proposed.

# B. Revision of the simplified modalities and procedures for small-scale CDM project activities

- 3. The SSC WG considered submissions requesting revisions to, or clarifications of approved SSC methodologies as well as requests for the creation of new methodologies. The detailed responses provided by the SSC WG are made publicly available at:
- <a href="http://cdm.unfccc.int/goto/SSCclar">http://cdm.unfccc.int/goto/SSCclar</a> and
- <a href="http://cdm.unfccc.int/methodologies/SSCmethodologies/NewSSCMethodologies/index.html">http://cdm.unfccc.int/methodologies/SSCmethodologies/NewSSCMethodologies/index.html</a>.

They can also be accessed by clicking the hyperlinked submission number in the table below.

Proposed new methodologies			
Submission	Title	Recommendation	
number			
SSC-NM038-rev	Fuel switch in a cogeneration/trigeneration system	(See paragraph 28)	
SSC-NM046-rev	Reduction of methane emissions by switching from	$WIP^1$	
	Transplanted to Direct Seeded Rice practice with	(See paragraph 30)	
	adjusted water management		
SSC-NM048-rev	Conversion from single cycle to combined cycle power	(See paragraph 29)	
	generation		
SSC-NM049	Capture of waste N <sub>2</sub> O from N <sub>2</sub> O Facilities and its	(See paragraph 31)	
	destruction via a catalytic destruction unit		
SSC-NM050	The use of less carbon intensive fossil fuels to offset	(See paragraph 32)	
	electricity and/or thermal energy		
SSC-NM052	Transport Energy Efficiency Activities using Idling	(See paragraph 33)	
	Stop Device		
SSC-NM053	Determination of greenhouse gas emissions reductions	(See paragraph 34)	
	based on whole-building simulation of building		
	mitigation efforts using eQUEST/DOE-2.2		
SSC-NM054	Freight Mode Switch- Road to Rail	(See paragraph 35)	
SSC-NM055	Introduction of Bio-CNG in road transportation	(See paragraph 36)	

Requests for revisions			
SSC_418	Revision of AMS-II.E to provide baseline procedure to	(See paragraph 4)	
	account for non-renewable biomass consumption		
SSC_422	Revision of AMS-I.C to expand its applicability to	(See paragraph 5)	
	include steam/heat produced from combined sources -		
	biomass and fossil fuel		
SSC 430	Expanding the applicability of AMS-III.X	(See paragraph 6)	

<sup>&</sup>lt;sup>1</sup> Work in progress

Requests for clarifications			
SSC_412	Applicability of AMS-III.Z or AMS-I.C to fuel switch to biomass in quicklime kilns	(See paragraph 14)	
<u>SSC_413</u>	Clarification on the treatment of waste gas recovery as new initiative or an incremental gain in existing practice under para 3 of AMS-III.Q	(See paragraph 26)	
SSC_414	Clarification on applicability of AMS-III.C or AMS-III.S to introduction of LNG vehicles into new public transportation routes	(See paragraph 15)	
SSC_415	Clarification on the data requirements for the measurement campaign for Greenfield projects under AMS-III.H	(See paragraph 22)	
SSC_416	Clarification on selection of emission factor of baseline fossil fuel under AMS-III.AH	(See paragraph 13)	
<u>SSC_417</u>	Clarification on applicability of AMS-III.B to switch from high carbon intensive fossil fuel to low carbon intensive grid electricity supply in aluminum melting	(See paragraph 24)	
<u>SSC_419</u>	Applicability of AMS-I.D to grid connected biomass integrated gasification combined cycle (BIGCC) plant	(See paragraph 17)	
<u>SSC_420</u>	Clarification on the approach for trend adjustment of the historic fossil fuel consumption under AMS-I.A	(See paragraph 16)	
SSC_421	Applicability of AMS-II.D and III.B to a fuel switch and energy efficiency measures implemented at the same facility	(See paragraph 25)	
SSC_423	Clarification on the applicability of AMS-III.F and AMS-III.H to waste water pulp treatment in one digester and the applicability of AMS-III.H to Greenfield projects	(See paragraph 21)	
SSC_424	Clarification on the applicability of AMS-III.D versus AMS-III.H for treating waste water from animal barns	(See paragraph 20)	
SSC_425	Clarification on ex-post monitoring procedures/parameters when biogas is used for thermal energy generation under AMS-III.D	(See paragraph 19)	
<u>SSC_426</u>	Clarification on <i>ex post</i> monitoring procedures to manure composting under AMS-III.F	(See paragraph 18)	
<u>SSC_427</u>	Clarification on historical data for determining baseline COD removal efficiency under AMS-III.H	(See paragraph 23)	
SSC_428	Clarification on the treatment of back-up unit for establishing the installed capacity under AMS-I.C	(See paragraph 12)	
<u>SSC_429</u>	Clarification on the applicability of AMS-III.T to plant oil production and use for electricity generation	(See paragraph 27)	

## C. Revisions & requests for revision of approved methodologies

4. Revision of AMS-II.E: in response to SSC\_418 requesting revision of AMS-II.E to include among other items the consideration of savings of non-renewable biomass consumption, the SSC WG agreed to continue considering the case subject to receipt of further information that responds to questions submitted to the project participants to which initial responses were already provided, as discussed in a teleconference and discussed at the energy efficiency workshop organized by the UNFCCC secretariat on 14th June 2010

<a href="http://cdm.unfccc.int/Panels/ssc">http://cdm.unfccc.int/Panels/ssc</a> wg/workshop/100514/index.html>.

- 5. Revision of AMS-I.C: in response to the submission SSC\_422 the SSC WG agreed to clarify that the baseline scenario stipulated in para 15 (e) of the recent version of AMS-I.C is applicable where biomass is the main fuel source for steam/heat generation in the baseline with a small percentage of fossil fuel use.
- 6. Revision of AMS-III.X: in response to SSC\_430 the SSC WG agreed to indicate that it is considering some simplification modifications to AMS III-X (e.g. those related to direct installation, first year installation requirements, inclusion of new fridge installations in addition to replacement activities currently covered, flexibility between using Type II and Type III methodologies) while requiring further inputs/substantiation of other proposals by the project participant (e.g. credible criteria for choosing the efficiency of the baseline fridges, accounting for free ridership, fate of baseline refrigerators). The SSC WG further agreed to reiterate that it is unable to recommend introduction of emission reductions related to non-Kyoto greenhouse gases whether directly as mitigation of baseline emissions or as a positive leakage.
- 7. Revision of AMS.III.S and AMS-III.C: taking into account the responses to request for clarifications already approved by the CDM Executive Board (the Board) (e.g. SSC\_376 and SSC\_364), the SSC WG agreed to recommend a revision to AMS-III.C as contained in annex 1 to clarify that the methodology is only applicable to technology/measures involving electric and hybrid vehicles. Furthermore the group noted that as currently written the methodology includes only limited guidelines for establishing the baseline, calculating project emissions and on monitoring aspects. Considering the increased size limits for the projects that are currently possible under the methodology now as opposed to the time of its approval, the group agreed to request guidance from the Board as to whether a major revision to the methodology could be carried out by the group in consultation with the project participants applying this methodology.
- 8. Furthermore a revision to AMS-III.S is recommended, as contained in annex 2, to expand its applicability to cover retrofit project activities and to include additional types of vehicle types (e.g. tricycles etc.). The requirements pertaining to maintaining fixed routes during the baseline and project has been revised to provide more options for the project participants to design projects including routes with comparable characteristics.
- 9. The SSC WG, as requested by the Board at its fifty-third meeting has commenced the work on development of a small-scale methodology covering technology/measures for water purification borrowing elements from the approved methodology AM0086. The SSC WG welcomes any inputs from project participants and experts in this regard and considers that such inputs would be very useful to recommend a methodology with a broad applicability and a high potential for use.
- 10. As requested by the Board (EB 54, paragraph 34) and taking into account submissions (e.g. NM009 and NM051), the SSC WG recommended a minor revision of AMS-III.T together with recommending new methodologies for stationary applications of plant oil, stationary applications of biodiesel and transport applications of biodiesel respectively. Options for using default factors (e.g. Nitrous oxide emissions from land use) drawing from elements of ACM0017 are included. Peatland use for oilseed crop cultivation has been excluded. The revised methodology and the new methodologies are contained in annex 3, 4, 5 and 6.
- 11. Revision of AMS-III.H: in response to several submissions (e.g. SSC\_406) the SSC WG agreed to recommend a revision of AMS-III.H as contained in annex 7 to clarify the criteria to be satisfied for the baseline lagoon treatment systems to be eligible under the methodology (e.g. the depth of the lagoon > 2 m, minimum sludge removal interval and ambient temperature conditions). The monitoring parameters including the required frequency of measurements and options for collection and recording of data are now presented in a table.

#### D. Response to requests for clarification - considered at the meeting

- 12. In response to SSC\_428 requesting clarification on the treatment of a back-up unit for establishing the installed capacity under AMS-I.C, the SSC WG agreed to clarify that both the boilers (the main unit and the back-up) can not be operated at the same time to meet the existing or the potentially implied increases in hot water demand unless both units (boilers) are considered in the determination of installed capacity limits and debundling check.
- 13. In response to SSC\_416 requesting clarification on the selection of an emission factor of baseline fossil fuel under AMS-III.AH, the SSC WG agreed to clarify that for existing facilities, historical information on the use of energy sources in the baseline shall be used for determination of the baseline emission factor. The SSC WG further clarified that for facilities that are less than three years old, all historical data shall be available (a minimum of one year data would be required).
- 14. In response to SSC\_412 requesting clarification on the applicability of AMS-III.Z and/or AMS-I.C to fuel switch in quicklime kilns, the SSC WG agreed to clarify that the underlying project activity is neither covered under the current version of AMS-III.Z nor is it eligible to apply AMS-I.C because AMS-III.Z is intended for brick production and is applicable for partial substitution of fossil with renewable biomass and Type I methodologies can not cover situations where fuel switch occurs at the same time as feedstock change. The SSC WG invited the project participants to submit a new methodology and/or follow the progress of development of new fuel switch methodologies in response to various submissions (e.g. SSC-NM038, SSC-NM040, SSC-NM047 and SSC 417).
- 15. In response to SSC\_414 requesting clarification on the applicability of AMS-III.C or AMS-III.S to the introduction of LNG vehicles into new public transport routes, the SSC WG agreed to clarify that neither AMS-III.C nor AMS-III.S are applicable to the underlying project activity where multiple transportation modes are possible options to meet increased transportation demand and a detailed baseline survey is needed to establish the most plausible baseline scenario. The project participants are encouraged to submit a new methodology using some of the procedures in AMS-III.U.
- 16. In response to SSC\_420 requesting clarification on the approach for trend adjustment of historic fossil fuel consumption under AMS-I.A in the context of a project activity for LED lighting to replace kerosene lighting, the SSC WG agreed to highlight the ongoing efforts by SSC WG in the area and invited the project participants to provide input through the "Call for public input: Framework for Estimating Greenhouse-Gas Reductions from Replacing Fuel-based Lighting with LED Systems" ending on 25 June 2010.
- <a href="http://cdm.unfccc.int/public\_inputs/2010/fuel\_LED\_repl/index.html">http://cdm.unfccc.int/public\_inputs/2010/fuel\_LED\_repl/index.html</a>
- 17. In response to SSC\_419 requesting clarification on the applicability of AMS-I.D to a grid connected biomass integrated gasification combined cycle (BIGCC) plant, the SSC WG agreed to clarify that the described project activity is eligible under AMS-I.D where an amount of waste heat is used as auxiliary consumption (2% of the total thermal energy generation) internally to dry the biomass feedstock in the operation of the BIGCC to ultimately produce electricity.
- 18. In response to SSC\_426 requesting clarification on ex post monitoring procedures to manure composting under AMS-III.F, the SSC WG agreed to clarify that, among others, the physical-chemical analysis of the parameters (i.e. volatile solids and manure density) can be carried out on site by the project participant only when the procedures for analysis (equipment, protocols, standards, etc.) are implemented in a way that can be validated and verified by DOEs.
- 19. In response to SSC\_425 requesting clarification on ex post monitoring procedures/parameters when biogas is used for thermal energy generation under AMS-III.D, the

- SSC WG noted that most of the issues raised in this submission are related to validation/verification which are under the scope of the work of a DOE, and agreed to further clarify the pertinent methodological requirement, i.e. that technical measures shall be used (including a flare for exigencies) to ensure that all biogas produced by the digester is used or flared, as specified in paragraph 2 (b), AMS-III.D version 16.
- 20. In response to SSC\_424 requesting clarification on the applicability of AMS-III.D versus AMS-III.H for treating waste water containing manure from animal barns, the SSC WG, after considering further information provided by the project participant, agreed to clarify that only AMS-III.H is applicable to the underlying project activity and the treatment of the manure removed before the flushing process shall also be included in the project boundary in order to avoid possible double counting of emission reductions.
- 21. In response to SSC\_423 requesting clarification on the applicability of AMS-III.F and AMS-III.H for waste water and pulp treatment in the same digester, the SSC WG agreed to clarify that a revision of AMS-III.F may be proposed by the project participant to cover the underlying project activity taking into account the indentified issues, e.g. the current calculation method for the wastewater treatment component in the methodology may not lead to a conservative emission reduction estimation in the context of the underlying project.
- 22. In response to SSC\_415 requesting clarification on data requirements for Greenfield projects under AMS-III.H, the SSC WG agreed to clarify that historical data from a comparable plant or another registered PDD can be used in lieu of the measurement campaign provided that the comparable plant complies with the relevant requirements in the methodology. Nevertheless, these external data are subject to uncertainty correction, i.e. the result shall be multiplied by 0.89.
- 23. In response to SSC\_427 requesting clarification on the use of eight month long historical data instead of one year historical data as an alternative to the use of data from measurement campaign for determining baseline COD removal efficiency under AMS-III.H, the SSC WG agreed to clarify that the data from a measurement campaign shall be used in order to be in compliance with the methodology.
- 24. In response to SSC\_417 requesting clarification on applicability of AMS-III.B to switch from high carbon intensive fossil fuel to low carbon intensive grid electricity supply in aluminium smelting, the SSC WG agreed to clarify that AMS-III.B or AMS-III.AG are intended for project activities whose primary output is energy and not a product such as aluminum product, ceramic products, brick etc. The SSC WG is currently reviewing the new methodologies such as SSC-NM038, SSC-NM040 and SSC-NM047 and the existing AMS-III.B/AMS-III.AG. In the opinion of the SSC WG a set of small-scale methodologies is required to cover the range of possible projects that involve switching from carbon intensive to low carbon energy, or fuel sources including cases where the output is a product, and not energy. The project participant may consider following the progress of this work, and is also invited to provide inputs on it, e.g. in the form of a new methodology.
- 25. In response to SSC\_421 requesting clarification on the applicability of AMS-II.D and AMS-III.B to a fuel switch and energy efficiency measures implemented at the same facility, the SSC WG agreed to clarify that the proposed project activity is not eligible to apply both AMS-II.D and AMS-III.B at the same time. The SSC WG is of the opinion that the projects potentially overlap in their use of reclaimed heat and the proposed emission reduction approach does not seem to clearly exclude possibilities for double counting of energy savings.
- 26. In response to SSC\_413 requesting clarification on the treatment of waste gas recovery as a new initiative or an incremental gain in existing practice under para 3 of AMS-III.Q, the SSC WG agreed to clarify that AMS-III.Q is not applicable to the project activity as it involves capacity

expansion in the existing facility of the industry and AMS-III.Q does not provide a procedure to determine the baseline for this type of project activity.

27. In response to SSC\_429 requesting clarification on the applicability of AMS-III.T to plant oil production and use for stationary electricity production applications, the SSC WG agreed to clarify that AMS-III.T is applicable for plant oil production and use in transportation applications. The SSC WG indicated that a new methodology for plant oil production and use in stationary applications has been elaborated and recommended to the Board for approval (see paragraph 10 above and annex 4 to this report). The project participants may wish to follow its progress.

# E. Proposed new methodologies

- 28. In response to NM038-rev, the SSC WG prepared a draft new Type III methodology applicable to existing/new construction cogeneration or trigeneration projects. The SSC WG invited feedback from the author of the query and expects to complete the methodology for recommendation to the Board at its twenty-seventh meeting.
- 29. In response to NM048-rev, the SSC WG agreed to recommend a new methodology entitled "Conversion from single cycle to combined cycle power generation", as contained in annex 8. The methodology is applicable for projects that convert an existing single cycle gas turbine or internal combustion engine with or without cogeneration system to a combined cycle system with or without cogeneration.
- 30. In response to NM046-rev for activities resulting in reduced methane emissions from rice fields because of shift from continuously flooded, transplanted rice methods to directly seeded rice with reduced flooding periods, the SSC WG continued providing feedback to the project participant with a view to develop a monitoring method that ensures that data collected is sufficiently representative of the baseline/project rice fields and at the same time it is practical and usable. The group agreed to finalize the recommendation to the Board at its twenty-seventh meeting.

#### F. Response to requests for new methodologies

- 31. In response to NM049 for the capture of waste  $N_2O$  from  $N_2O$  facilities and its destruction via a catalytic destruction unit, the SSC WG, after taking into account the guidance from the Board (EB 47, paragraph 58), agreed not to recommend the methodology, since a simplified small-scale methodology may not provide the right framework for the kind of technology/measure of the project activity, its implication concerning baseline, project and leakage emissions, and monitoring requirements.
- 32. In response to NM050 for the use of less carbon intensive fossil fuels to offset electricity and/or thermal energy, the SSC WG agreed to seek further clarifications as it determined that there are fundamental issues to be resolved in the submission pertaining to emission reduction estimation methods in particular the procedures for Greenfield/capacity expansion project activities. The SSC WG also noted that the project proponent may wish to explore modification of AMS-II.K to cover the proposed project as an alternative.
- 33. In response to NM052 for transport energy efficiency activities using idling stop device, the SSC WG agreed to seek further clarifications on, among the other issues, how the percentage of vehicles that do not idle in the baseline would be determined and how the Engine Control Unit (ECU) will be calibrated and cross-checked to ensure that the output values are reliable.
- 34. In response to NM053 for greenhouse gas emission reductions based on whole-building simulation of buildings using eQUEST/DOE-2.2, the SSC WG noted that the use of computer simulation for addressing comprehensive new construction and retrofit energy efficiency measures has significant potential. The group agreed that a number of issues need to be addressed by the

project participants before this methodology can be further evaluated, e.g. how can the methodology ensure the integrity and validity of model inputs and model default values.

- 35. In response to NM054 for freight mode switching from road to rail, the SSC WG agreed to seek further inputs in particular the assessment of different scenarios to ensure that the project activity is only eligible under the methodology when road transportation is proven to be the continuation of the current situation in the baseline. Further clarifications related to sources of data on baseline vehicles and consideration of baseline technology improvement were also requested.
- 36. In response to NM055 for the introduction of Bio-CNG in road transportation, the SSC WG agreed to seek further inputs for example the approach for ensuring that biomass cultivation for Bio-CNG production will not lead to shift in pre-project land use, monitoring of production, filling and storage of the Bio-CNG. The SSC WG also suggested that project participants may consider an approach based on the amount of Bio-CNG consumed by the project vehicles instead of the comparable route approach currently employed.

# G. Public consultation (Workshops, Side events, Public inputs)

37. As requested by the Board, the secretariat organized a workshop on SSC energy efficiency methodologies on 14<sup>th</sup> June 2010 in Bonn. The proceedings of the workshop can be accessed at <a href="http://cdm.unfccc.int/Panels/ssc\_wg/workshop/100514/index.html">http://cdm.unfccc.int/Panels/ssc\_wg/workshop/100514/index.html</a>. The SSC WG thanked the project participants and stakeholders for sharing the practitioners' perspectives of methodology implementation and considered these inputs very valuable for the work of the group to increase the usability of the methodologies. The group agreed to a work plan, beginning at this meeting (twenty-sixth meeting), with the aim to deliver methodological solutions taking into account issues raised at the workshop and engaging the project participants and stakeholders in this endeavor.

#### H. General guidance

- 38. General guidelines to SSC CDM methodologies: The SSC WG agreed to recommend a revision of the general guidelines to SSC methodologies to update the document to reflect the latest decisions of the Board, as contained in annex 9.
- 39. As requested by the Board at its fifty-first meeting (EB 51, annex 11) and as per approved workplan by the Board for the SSC WG (EB 52, annex 15), the group continued working on developing best practice examples for the application of sampling guidelines. The SSC WG agreed that there is a need to further study the application of sampling guidelines in the PDDs, further consultation with statistical experts and project participants before finalization of the best practice examples to ensure that the examples provided cover a broad range of applications and circumstances under which the sampling guidelines are applied. The SSC WG agreed to indicate that it aims to complete the work by the twenty-ninth meeting of the group and make a final recommendation to the Board.

#### I. Schedule of meetings

40. The SSC WG agreed to schedule its twenty-seventh meeting from 16 to 19 August 2010 taking into account the schedule of the Board. The deadline for new methodology submissions to this meeting is **08 June 2010** and the deadline for submitting requests for clarifications/revisions for this meeting is **19 July 2010**.

#### J. Desk Reviews

41. The SSC WG noted the satisfactory completion of the desk reviews undertaken for the proposed new SSC methodologies considered at the meeting.

## External annexes to the twenty-sixth meeting of the SSC WG

Annex 1: Revision of AMS-III.C

Annex 2: Revision of AMS-III.S

Annex 3: Revision of AMS-III.T

Annex 4: SSC-I.G Plant oil production and use for energy generation in stationary applications

Annex 5: SSC-I.H Biodiesel production and use for energy generation in stationary applications

Annex 6: SSC-III.AK Biodiesel production and use for transport applications

Annex 7: Revision of AMS-III.H

Annex 8: SSC-III.AL Conversion from single cycle to combined cycle power generation

Annex 9: General guidelines to SSC CDM methodologies