

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

UNFCCC Headquarters, Bonn, Germany  
11–14 January 2011

### 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. The SSC WG expressed its deep appreciation to the outgoing Vice-Chair Mr. Hugh Sealy, for the excellent contributions to the work of the group.
2. The agenda was adopted as proposed.

#### **B. Proposed new methodologies**

3. The SSC WG considered submissions requesting creation of new methodologies. The detailed responses provided by the SSC WG are made publicly available at: <http://cdm.unfccc.int/methodologies/SSCmethodologies/NewSSCMethodologies/index.html>. They can also be accessed by clicking the hyperlinked submission numbers in the table below.

<b>Request for new methodologies</b>		
Submission number	Title	Recommendation
<a href="#">SSC-NM058-rev</a>	Lime kiln fired with gasified renewable biomass	(See paragraph 4)
<a href="#">SSC-NM061-rev</a>	Transportation Energy Efficiency Activities installing digital tachograph systems to commercial freight transport fleets	(See paragraph 5)
<a href="#">SSC-NM063</a>	Methane emission reduction by switching from transplanted to direct seeded rice with adjusted water management practice	(See paragraph 6)

4. In response to SSC-NM058-rev “Lime kiln fired with gasified renewable biomass”, the SSC WG agreed to recommend a new methodology entitled SSC-III.AS “Switch from fossil fuel to biomass in existing manufacturing facilities for non-energy applications”, as contained in annex 1. The methodology is for switching from a carbon intensive energy source (or a mix of energy sources) to renewable biomass or mix of renewable biomass and fossil fuel in existing manufacturing processes. The methodology provides a simplified approach for baseline emissions calculations for project activities resulting in emission reductions less than 20 kt CO<sub>2</sub> per year and a more rigorous approach for project activities resulting in emissions reductions exceeding 20 kt CO<sub>2</sub> per year.

5. In response to SSC-NM061-rev “Transportation Energy Efficiency Activities installing digital tachograph systems to commercial freight transport fleets”, the SSC WG agreed to request the project proponent to provide further inputs. The group was of the opinion that a more robust procedure to isolate the effect of introduction of tachograph systems from behavioral and other factors that may influence emission reductions would be needed.

6. In response to SSC-NM063 “Methane emission reduction by switching from transplanted to direct seeded rice with adjusted water management practice”, the SSC WG agreed to seek further clarifications pertaining to monitoring at the farms, and statistical treatment of methane emissions data collected from rice fields.

### **C. Development of new methodologies and tools**

7. The SSC WG agreed to recommend a new methodology entitled “SSC-I.I Biogas/biomass use for thermal applications for the households/small users”, as contained in annex 2. The methodology was developed top-down by the group taking into account inputs from experts, the project proponents and other stakeholders. It also integrates previous clarifications provided and lessons learned (e.g. SSC\_346 had elaborated some options for monitoring of biogas which were not mandatory requirements). The proposed methodology includes simplified approaches for monitoring of thermal energy generated using biogas or processed biomass in small-scale end use applications.

8. The Board, at its fifty-third meeting, agreed to open a call for public inputs on a small-scale methodology for demand-side activities for outdoor and street efficient lighting technologies. The SSC WG agreed to continue considering the methodology, taking into account public comments received, expert inputs and inputs from potential project proponents. It agreed to finalize the methodology for recommendation by the thirtieth meeting of the group. The draft methodology which is a work in progress is attached as annex 3 to this report.

9. As envisaged in the workprogramme (second semester 2010) the SSC WG continued to work on cookstove methodologies i.e. AMS-I.E “Switch from Non-Renewable Biomass for Thermal Applications by the User” and AMS-II.G “Energy Efficiency Measures in Thermal Applications of Non-Renewable Biomass” with a view to enhance the usability of these methodologies. It agreed to consult project proponents and experts, and finalize the recommendation for revision at the thirtieth meeting of the group.

10. The SSC WG commenced work on the top-down development of a new methodology for solar cooker applications, clarifying issues related to baseline determination and monitoring (e.g. thermal energy output, efficiency testing). The SSC WG agreed to continue working on the issue in order to finalize the recommendation by the thirty-first or thirty-second meeting of the group taking into account expert and public inputs.

11. The SSC WG considered public and expert input on a new small-scale solar water heating methodology developed top-down. The SSC WG made progress in preparing the new methodology for residential and commercial retrofit and Greenfield applications that displace electricity and/or fossil fuels. The methodology will include multiple options for calculating emission reductions. These options include use of a conservative stipulated savings value, computer simulation and metering. The SSC WG agreed to continue to consider the methodology, seek input on an updated draft methodology from those stakeholders that provided initial comments on the first draft of the methodology, and then finalize the methodology for recommendation at the thirtieth meeting of the group.

**D. Revisions of approved methodologies and tools**

12. The SSC WG considered submissions requesting revisions to approved SSC methodologies. The detailed responses provided by the SSC WG are made publicly available at: <<http://cdm.unfccc.int/methodologies/SSCmethodologies/clarifications>>. They can also be accessed by clicking the hyperlinked submission numbers in the table below. Revisions which were a result of requests for clarification can be found under Section E, paragraph 29, 30, 31 and 35.

<b>Requests for Revisions</b>		
<a href="#">SSC_481</a>	Revision of AMS-II.I to clarify the applicability of the methodology	Withdrawn (See paragraph 13)
<a href="#">SSC_486</a>	Revision of AMS-I.D's classification for intermittent and non-dispatchable nature of power generation activities and related combined margin calculation	(See paragraph 14)
<a href="#">SSC_487</a>	Revision of AMS-III.AK to include project activities that produce biodiesel from oilseeds from non-dedicated plantations	(See paragraph 15)
<a href="#">SSC_488</a>	Revision of AMS-III.W to include the utilization of methane as an option	WIP (See paragraph 17)
<a href="#">SSC_490</a>	Revision of AMS-I.C to include project activities that involve more than one boiler with different fuels	(See paragraph 19)
<a href="#">SSC_492</a>	Revision of AMS-III.R to allow for non-renewable biomass to be used in the baseline	(See paragraph 18)
<a href="#">SSC_493</a>	Revision of AMS-III.R to allow combination with AMS-I.E	(See paragraph 18)
<a href="#">SSC_495</a>	Revision of AMS-II.E to provide baseline procedures for non-renewable baseline consumption and clarify the procedures for retrofitting existing buildings	(See paragraph 21)
<a href="#">SSC_496</a>	Revision of AMS-I.E to simplify and broaden the water purification part of the methodology	(See paragraph 20)
<a href="#">SSC_497</a>	Revision of AMS-III.Q to include multiple fuels in the baseline electricity source and multiple waste heat sources	(See paragraph 22)
<a href="#">SSC_498</a>	Revision of AMS-III.AJ to allow for inclusion of PET and also inclusion of project activities where plastics are transported over 200km	(See paragraph 16)

13. **Revision of AMS-II.I “Efficient utilization of waste energy in industrial facilities”**: during the process of assessment of the submission, the author indicated that on further analysis, they have concluded that their project will not be applicable under AMS-II.I, even with modifications, and therefore withdrew their request for revision.

14. **Revision of AMS-I.D “Grid connected renewable electricity generation”**: in response to the submission SSC\_486 in the context of a hydro project, requesting revision of AMS-I.D to clarify consideration of intermittent and non-dispatchable power generation activities and related combined margin calculation, the SSC WG agreed to clarify that the proposed changes are not under the scope of AMS-I.D, but under the scope of a revision of

the “Tool to calculate the emission factor for an electricity system”. The SSC WG agreed however to forward the issue to the Meth Panel, if further justification and a definition of a run-of-the-river hydro plant are provided.

15. **Revision of AMS-III.AK “Biodiesel production and use for transport applications”**: in response to the submission SSC\_487, requesting revision of AMS-III.AK to include production of biodiesel as a by-product of oilseeds meal processing where oilseeds are not necessarily produced in dedicated plantations, the SSC WG agreed not to recommend the proposed revision. The SSC WG was of the opinion that the proposed revision does not address issues related to shift of the pre-project activities and estimation of project emissions associated with cultivation of crops used for biodiesel production.

16. **Revision of AMS-III.AJ “Recovery and recycling of materials from solid wastes”**: in response to the submission SSC\_498, requesting revision of AMS-III.AJ, the SSC WG agreed to recommend a revision of AMS-III.AJ, taking into account public and experts input, as contained in annex 4, to include Polyethylene Terephthalate (PET) recovered from municipal solid waste.

17. **Revision of AMS-III.W “Methane capture and destruction in non-hydrocarbon mining activities”**: in response to the submission SSC\_488 requesting revision of AMS-III.W to include the utilization of methane captured from exploration boreholes, the SSC WG agreed to continue considering the issue and to seek input from the Meth Panel.

18. **Revision of AMS-III.R “Methane recovery in agricultural activities at household/small farm level”**: considering a number of pertinent submissions by project proponents and DOEs (e.g. SSC\_492 and SSC\_493 ), the SSC WG agreed to recommend a revision of AMS-III.R, as contained in annex 5, to allow the combination of this methodology with AMS-I.E “Switch from Non-Renewable Biomass for Thermal Applications by the User”.

19. **Revision of AMS-I.C “Thermal energy production with or without electricity”**: in response to submission SSC\_490 requesting the inclusion an option to use multiple boilers, each fired with biomass and fossil fuel in the baseline, the SSC WG agreed not to recommend a revision of AMS-I.C. The group however was of the opinion that the underlying project is eligible to apply AMS-I.C if only the fossil fuel boilers in the pre-project situation are included in the baseline calculations and all other provisions of AMS-I.C are met.

20. **Revision of AMS-I.E “Switch from Non-Renewable Biomass for Thermal Applications by the User”**: in response to the submission SSC\_496 requesting a revision of AMS-I.E to simplify and broaden the water purification component of the methodology, the SSC WG agreed to continue considering the case. The group agreed to develop a methodology for water purification applications top-down, considering that the technology/measure falls under the priority areas for methodology development set by the Board. The SSC WG will continue consulting the author of the submission and other interested project proponents, stakeholders and experts with a view to finalize a draft of the methodology by the thirtieth meeting for recommendation to the Board.

21. **Revision of AMS-II.E “Energy efficiency and fuel switching measures for buildings”**: in response to the submission SSC\_495 requesting revision of AMS-II.E to provide procedures for baseline non-renewable biomass consumption and clarify the procedures for retrofitting existing buildings, the SSC WG provided feedback to the submission author and agreed to continue considering the issue together with other ongoing work related to clarifying, simplifying and expanding the methodologies for building energy efficiency activities.

22. **Revision of AMS-III.Q “Waste Energy Recovery (gas/heat/pressure) Projects”**: in response to the submission SSC\_497 requesting revision of AMS-III.Q to include an option to consider use of multiple fuels to produce electricity in the baseline, the SSC WG agreed to consider the proposal in its ongoing work. For example the case of multiple fuel use in the baseline will be taken into account in the ongoing work of the top-down revision of AMS-III.Q that the group is undertaking with an aim to finalize it by the thirtieth meeting of the group. Further the submission author was invited to submit a request for revision of the methodology to cover the use of multiple waste heat sources in an activity involving conversion from single cycle to combined cycle electricity production under AMS-III.Q.

### **E. Clarifications to approved methodologies and tools**

23. The SSC WG considered submissions requesting clarifications to approved SSC methodologies. The detailed responses provided by the SSC WG are made publicly available at: <<http://cdm.unfccc.int/methodologies/SSCmethodologies/clarifications>>. They can also be accessed by clicking the hyperlinked submission numbers in the table below.

<b>Requests for clarifications</b>		
<a href="#">SSC_482</a>	Clarification on demonstration of the remaining lifetime of the replaced equipment under AMS-I.D	(See paragraph 24)
<a href="#">SSC_483</a>	Clarification on historical electricity generation calculation under AMS-I.D	(See paragraph 25)
<a href="#">SSC_484</a>	Clarification on the applicability of AMS-II.C to a pump scheduling system	(See paragraph 26)
<a href="#">SSC_485</a>	Clarification on the applicability of AMS-III.D to a dry cattle feedlot baseline treatment system	(See paragraph 27)
<a href="#">SSC_489</a>	Clarification on the applicability of AMS-II.D for project activities involving changes in raw material and production process in an automotive painting plant	(See paragraph 28)
<a href="#">SSC_491</a>	Clarification on the emissions reduction calculation of AMS-III.F in case of increase of capacity utilization	(See paragraph 29)
<a href="#">SSC_494</a>	Clarification on the applicability of AMS-III.AN to early-start CDM projects	(See paragraph 30)
<a href="#">SSC_499</a>	Clarification on the applicability of “Guidelines for demonstrating additionality of renewable energy projects =< 5 MW and energy efficiency projects with energy savings <= 20 GWH per year” to landfill gas projects	WIP (See paragraph 32)
<a href="#">SSC_500</a>	Clarification on the applicability of AMS-II.C to project activities which involve installation of water saving devices	(See paragraph 33)
<a href="#">SSC_501</a>	Clarification on the baseline emissions calculation under AMS-III.AO	(See paragraph 34)
<a href="#">SSC_502</a>	Clarification regarding applicability of AMS-III.B to fuel switching at isolated grid connected electricity generation facilities	(See paragraph 35)

24. In response to the submission SSC\_482 requesting clarification on demonstration of the remaining lifetime of the replaced equipment under AMS-I.D “Grid connected renewable electricity generation”, the SSC WG agreed to clarify that requirements specified in the most recent version of the “Tool to determine the remaining lifetime of equipment” shall be followed. The SSC WG agreed that these procedures are appropriate and adequate for SSC project activities.
25. In response to the submission SSC\_483 requesting clarification on the historical electricity generation calculation under AMS-I.D “Grid connected renewable electricity generation”, the SSC WG agreed to clarify that the provisions of ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable source”, can also be applied for project activities applying AMS-I.D that involve retrofit of hydro power units with options to choose between two data spans for determining the historical net electrical energy generation.
26. In response to the submission SSC\_484 requesting clarification on the applicability of AMS-II.C “Demand-side energy efficiency activities for specific technologies” to the pump scheduling system, the SSC WG agreed to clarify that AMS-II.C is applicable to the proposed pump scheduling system if it meets the indicated requirements and Option 2 of the methodology for determining the baseline can be applied.
27. In response to the submission SSC\_485 requesting clarification on the applicability of AMS-III.D “Methane recovery in animal manure management systems” to a dry cattle feedlot baseline treatment system, the SSC WG agreed to clarify that AMS-III.D shall be used to account for the increased emissions due to the project implementation.
28. In response to the submission SSC\_489 requesting clarification on the applicability on AMS-II.D “Energy efficiency and fuel switching measures for industrial facilities” for project activities involving changes in raw materials and production processes in an automotive painting unit, the SSC WG agreed to clarify that the current provisions of the methodology are not intended to cover project activities that involve process change. The SSC WG clarified that issues such as potential leakage emissions due to changes in raw materials, equivalent baseline and project service levels and avoidance of double counting of emission reductions needs to be addressed.
29. In response to the submission SSC\_491 requesting clarification on the emissions reduction calculation of AMS-III.F “Avoidance of methane emissions through composting” in the case of an increase in capacity utilization, the SSC WG agreed to revise the methodology to clarify the issue as contained in annex 6 i.e. relevant equations covering capacity increase in existing composting facilities have been modified.
30. In response to the submission SSC\_494 requesting clarification on the applicability on AMS-III.AN “Fossil fuel switch in existing manufacturing industries” to early-start CDM projects, the SSC WG agreed to recommend a revision of AMS-III.AN, as contained in annex 7, to allow determination of baseline emissions using three years of historical data prior to the start date of the project.
31. In order to achieve consistency across the fuel switch methodologies, the SSC WG agreed to revise the requirements on data vintages used for calculating baseline emissions in AMS-III.AM in line with the revision of AMS-III.AN, as contained in annex 8.
32. In response to the submission SSC\_499 requesting clarification on the applicability of the “Guidelines for demonstrating additionality of renewable energy projects  $\leq 5$  MW and energy efficiency projects with energy savings  $\leq 20$  GWH per year” to landfill gas projects, the SSC WG agreed to continue to consider the submission and provide a response at a future

meeting of the SSC WG. The group noted that Board at its fifty-seventh meeting has requested further work on the guidelines.

33. In response to the submission SSC\_500 requesting clarification on the applicability of AMS-II.C “Demand-side energy efficiency activities for specific technologies” to project activities which involve installation of water saving devices, the SSC WG agreed to clarify that although the project is in principle eligible, a revision of AMS-II.C or a new methodology would be required to adequately cover the activities described in the submission.

34. In response to the submission SSC\_501 requesting clarification on the baseline emissions calculation under AMS-III.AO “Methane recovery through controlled anaerobic digestion”, the SSC WG agreed to clarify that the adjustment factor (f) can be set as 0, since any landfill gas in the baseline that would have been captured and destroyed to comply with relevant regulations or contractual requirements or to address safety and odor concerns, has been accounted for in determining  $MD_{reg,y}$ .

35. In response to the submission SSC\_502 requesting clarification regarding the applicability of AMS-III.B “Switching fossil fuels” to fuel switching at isolated grid connected electricity generation facilities, the SSC WG agreed to clarify that AMS-III.B is applicable to the underlying project activity. The group agreed to recommend a revision of AMS-III.B to further clarify issues related to the installation of new energy generating facility (low carbon intensive) to displace an existing energy generating facility (carbon intensive) connected to an isolated grid (s) system, as contained in annex 9.

#### **F. Other issues**

36. As requested by the Board (EB 50, para 51) and envisaged in the workprogramme (second semester of 2010) the SSC WG further considered inputs and revised sampling examples from experts on developing non-binding best practices examples to illustrate the application of sampling guidelines. The SSC WG agreed that additional work would be required and aims to finalize a number of examples by the thirtieth meeting of the group.

37. The SSC WG recommended a revision of the “General Guidelines to SSC CDM methodologies” to clarify the definition of Installed/Rated capacity of Renewable Energy projects (consistent with the response to SSC\_338 agreed by the Board), as contained in annex 10. The proposed revision further clarifies that latest versions of the norms, specifications and standards and guidelines that are available at the time of commencing the validation shall be applied by the project proponents.

38. The SSC WG noted that it received a query from the CDM Accreditation Panel pertaining to project additionality in the context of a project which intends to replace incandescent bulbs with CFLs at free of charge in households, and that is funded only by CER revenue.

39. At the outset SSC WG would like to point out that demonstration of additionality using barriers (for example, technological barriers, barriers due to prevailing practice, institutional barriers or limited information barriers) as indicated in Annex C to Appendix B could be more appropriate in these types of situations. However, the SSC WG also recognizes the value in the application of quantitative methods of the simple cost analysis. Thus, where the PP wishes to demonstrate additionality by demonstrating investment barriers, via cost analysis, the Board’s guidance in “Non-binding best practice examples to demonstrate additionality for SSC project activities” (Annex 34, EB 35) shall be taken into account. These examples indicate options including the application of investment comparison analysis using a relevant financial indicator, application of a benchmark analysis, or a simple cost analysis (where CDM is the only revenue stream such as end-use energy efficiency).

40. The SSC WG is of the opinion that simple cost analysis may be undertaken, considering only the CER revenue as the income and the PP expenses as the only costs, in cases where: (a) The project involves distributed, household end-use energy efficiency measures; (b) The PP receives no revenue other than the CER revenue; and (c) The PP actually supplies the energy efficiency measures (equipment). That is in these cases the end-user energy cost savings, or other end-user benefits/costs do not have to be considered.

41. In response to the request from EB 58 to further assess the parameter BIF1 in AMS-III.AP “Transport energy efficiency activities using post - fit Idling Stop device”, the SSC WG would like first of all to clarify the definition and intention of this parameter. The purpose of BIF1 (or Baseline Idling Stop Factor in Year 1) is to take into account the estimated percentage of vehicles that in the baseline would manually turn off their engines when stopped (and therefore do not idle). BIF1 is set to either 0.95 (meaning that 5% of vehicles are assumed to manually turn off engines) or the result of a third party survey. In the approved version of the methodology, BIFy is increased each year by multiplying it by another parameter known as AEF, (Annual Escalation Factor), which is set to a value of 0.98.

42. The SSC WG would like to point out that the issue of the baseline penetration of idling-stop technology is dealt with in the applicability conditions of the methodology, and not in the parameters BIF and AEF, which relate strictly to the vehicles that would manually turn off their engines instead of idling. The SSC WG considered the concerns of the Board regarding the conservativeness and appropriateness of the default values assigned to these two parameters. Taking into account the simplified nature of small-scale methodologies and the relatively low rate of change in driver behavior reported in literature, the group agreed that it would be appropriate to remove the parameter AEF from the methodology. This means that the parameter BIF would be kept at a constant value throughout the crediting period.

43. Further, after reviewing data and reports from various sources, the group is still of the view that the value of 0.95 is an appropriate, conservative default value for developing countries and its use in AMS-III.AP is in line with the Board’s guidance to provide conservative default values for parameters used in small-scale methodologies, alongside an option for the project proponents to carry out a survey to estimate the parameter if they so wish to document a local value. A literature review yielded numbers ranging from 85% to 98% for the percentage of vehicles that idle at intersections in developing countries. Although only a limited number of studies on idling vehicles were found, and some of these studies were not peer-reviewed, this range of values indicates that the default value is appropriate.

44. Taking into account the above issues the SSC WG agreed to recommend a revision of AMS-III.AP, as contained in annex 11.



### **G. Schedule of meetings and rounds of submissions**

45. The SSC WG agreed to schedule its thirtieth meeting from 15-18 March 2011 taking into account the schedule of the Board. The deadline for new methodology submissions to this meeting is 17 January 2011 and the deadline for submitting requests for clarifications/revisions for this meeting is 14 February 2011.

### **H. Desk reviews**

46. The SSC WG noted the satisfactory completion of the desk review SSC-NM063 undertaken for the proposed new SSC methodologies considered at the meeting.

**External annexes to the twenty-ninth meeting of the SSC WG**

- Annex 1: SSC-III.AS “Switch from fossil fuel to biomass in existing manufacturing facilities for non-energy applications”
- Annex 2: SSC-I.I. “Biogas/biomass thermal applications for households/small users”
- Annex 3: SSC-II.L “Demand-side activities for outdoor and street efficient lighting technologies”
- Annex 4: Revision of AMS-III.AJ
- Annex 5: Revision of AMS-III.R
- Annex 6: Revision of AMS-III.F
- Annex 7: Revision of AMS-III.AN
- Annex 8: Revision of AMS-III.AM
- Annex 9: Revision of AMS-III.B
- Annex 10: Revision of “General Guidelines to SSC CDM methodologies”
- Annex 11: Revision of AMS-III.AP