REPORT OF THE TWENTIETH MEETING
OF THE SMALL-SCALE WORKING GROUP

UNFCCC Headquarters, Bonn, Germany
29 April–02 May 2009

RECOMMENDATIONS BY THE SSC WG TO THE EXECUTIVE BOARD

A. Opening of the meeting and adoption of the agenda

1. The Chair of the Small Scale Working Group (SSC WG), Mr. Hugh Sealy, opened the meeting and welcomed the new member, Mr. A. K. Perumal. The SSC WG expressed its deep appreciation to the outgoing member, Mr. Binu Parthan, for the excellent contributions to the work of the group.

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

Proposed new methodologies		
Submission number	**Title**	**Recommendation**
SSC-NM016-rev2	Avoidance of HFC emissions in Standalone Commercial Ice Cream Cabinets	(See paragraph 5)
SSC-NM017-rev	Introducing recovery of spent sulphuric acid including pre-concentration, heat recovery and electricity generation to avoid CO_2 emissions from its neutralisation with hydrated lime or lime stone	(See paragraph 28)
SSC-NM018-rev	Switching from fossil fuels to biomass residues or other renewable fuels in clinker production	(See paragraph 29)
SSC-NM019-rev	Transportation Energy Efficiency Activities using Retrofit Technologies	(See paragraph 4)
SSC-NM020-rev	Electricity and/or heat generation using fuel cell	(See paragraph 6)
SSC-NM021-rev	Reduction of energy consumption during hydraulic lime production for construction purposes by adding non-calcined mineral components and additives	(See paragraph 7)
SSC-NM022-rev	Emissions reductions from electricity generation resulting from energy efficiency measures	(See paragraph 8)
SSC-NM023-rev	Energy efficiency and renewable energy measures in new housing	WIP[1] (See paragraph 22)
SSC-NM024-rev	Methodology for using recycled material instead of raw material	WIP (See paragraph 23)
SSC-NM025	Emission reduction measures in ferroalloy production	(See paragraph 24)
SSC-NM026	Avoidance of Methane emissions through Manure Composting	(See paragraph 25)

[1] Work in progress

SSC-NM027	Optimizing Public Passenger Transport	(See paragraph 27)
SSC-NM028	Avoidance of methane emissions through controlled biological treatment of partially decayed MSW	(See paragraph 26)

Requests for revisions		
SSC_285	Revision of AMS-III.Q to allow for project activities that utilize waste electricity	(See paragraph 21)
SSC_288	Proposal on emission reduction calculation for higher wattage CFLs in AMS-II.J	(See paragraph 11)
SSC_289	Addressing overlap between NTG and BP, and use of *ex post* surveys to adjust LFR in AMS-II.J	(See paragraph 11)
SSC_291	Revision of methane producing capacity factor of wastewater (B0,ww) in AMS-III.H	(See paragraph 19)
SSC_292	Revision of AMS-I.C regarding processed renewable biomass, thermal capacity of co-fired system and extending the project boundary	(See paragraph 20)
SSC_294	Revision regarding calculation of project methane emissions during composting in AMS-III.F	(See paragraph 17)
SSC_297	Revision of AMS-III.Z regarding demonstration of abundance of raw materials and quality of bricks	(See paragraph 18)
SSC_298	Revision to remove FaL-G technology-based brick manufacturing project activity from the scope of AMS-III.Z	(See paragraph 18)

Requests for clarifications		
SSC_286	Clarification on applicability of AMS-I.D for project activity involving addition of back pressure turbine in existing cogeneration system	WIP
SSC_287	Clarification on emission factor to calculate methane emissions during composting in AMS-III.F	(See paragraph 31)
SSC_290	Applicability of composting technologies for animal manure treatment for avoiding methane emissions	(See paragraph 32)
SSC_293	Clarification regarding baseline scenario of a Greenfield biomass cogeneration project in AMS-I.C	(See paragraph 30)
SSC_295	Applicability of AMS-II.D for project activity using low energy intensive alternative raw material	(See paragraph 33)
SSC_296	Applicability of AMS-III.H to project activity involving flaring/combustion and utilization of recovered biogas	(See paragraph 34)
SSC_299	Change in the amount of CERs from registered PDD	(See paragraph 35)

C. Proposed new methodologies

4. In response to SSC-NM019-rev, the SSC WG agreed to recommend a new methodology titled "AMS-III.AA Transportation Energy Efficiency Activities using Retrofit Technologies" as contained in annex 1. The methodology is for engine retrofit of vehicles for higher fuel efficiency in commercial passenger transport (e.g., direct in cylinder fuel injection to substitute carburretted fuel supply in tricycle taxis).

5. In response to SSC-NM016-rev2, the SSC WG agreed to recommend a new methodology titled "AMS-III.AB Avoidance of HFC emissions in Standalone Commercial Refrigeration

Cabinets" as contained in annex 2. The methodology is for avoiding fugitive HFC-134a refrigerant emissions during manufacturing, usage, servicing and disposal of commercial stand-alone freezers (e.g., those used in storage and vending of ice cream).

6. In response to SSC-NM020-rev, the SSC WG agreed to recommend a new methodology titled "AMS-III.AC Electricity and/or heat generation using fuel cell" as contained in annex 3. The methodology is for energy generation with fuel cell technologies using natural gas as feedstock.

7. In response to SSC-NM021-rev, the SSC WG agreed to recommend a new methodology titled "AMS-III.AD Emission reductions in hydraulic lime production" as contained in annex 4. The methodology is for alternative hydraulic lime production utilising non-calcined mineral components and additives.

8. In response to SSC-NM022-rev, the SSC WG agreed to recommend a new methodology titled "AMS-II.K Industrial process optimisation for energy efficiency and electricity generation" as contained in annex 5. The methodology is for improving the energy efficiency of a sub-process within an existing industrial facility (e.g., alumina production) where the saved energy is utilised for the increased generation of electricity which displaces electricity from another source.

9. In response to SSC_250, the SSC WG agreed to recommend a new methodology titled "AMS-III.AE Shift from high carbon intensive fuel mix ratio to low carbon intensive fuel mix ratio" as contained in annex 6. The methodology includes cases for example involving replacement of a heavy fuel oil (HFO) engine with a Natural Gas (NG) engine to enable a low GHG intensive fuel mix ratio of 25:75 (HFO: NG) from a baseline fuel mix ratio of 70:30 (HFO: NG) on an annual basis.

10. In response to SSC-NM014 the SSC WG agreed to recommend a new methodology titled "AMS-III.AF Switching from high carbon intensive grid electricity to low carbon intensive fossil fuel" as contained in annex 7. This methodology is applicable when the sole or one of the energy sources in the baseline is high carbon intensive grid electricity (e.g. switch from captive generation complemented by grid electricity import to a natural gas based captive electricity generation).

D. Revisions & requests for revision of approved methodologies

11. Revision of AMS-II.J: in response to SSC_266, SSC_269, SSC_276, SSC_277, SSC_284, SSC_288 and SSC_289, the SSC WG agreed to recommend a revision of AMS-II.J as contained in annex 8 taking into account expert inputs. Proposed revisions include *inter alia*:

- Broader range of eligible incandescent and CFL Wattages to expand the applicability of the methodology;
- Deletion of cross effect calculations and baseline penetration assessment for PoAs (see below);
- Provisions to use results of *ex post* surveys to correct CFL attrition rates for more accurate estimation of emission reductions;
- Fixed average daily utilisation hours (3.5 hrs/day) of CFL (see paragraph 12).

12. The SSC WG analysed the available pertinent literature with a view to develop default factors for simplified estimation of leakage due to cross effects based on cooling degree days (CDD) and heating degree days (HDD) of a location. However no specific criteria could be determined at this time for accurately determining this leakage, if it occurs at all, from CFLs in residential applications. Diverse technologies/measures are used to meet cooling and heating

needs, combined effect of increased heating needs and reduced cooling needs attributable to efficient lighting is likely to be negligible on an average basis and there are high uncertainties surrounding the available data on parameters required to estimate cross effects in the context of households.

13. The SSC WG recommended the deletion of baseline penetration (BP) of CFLs as redundant to NTG (net to gross adjustment) calculations. Furthermore, while the estimation of BP and factoring its impact on electricity savings may be an important component of a market transformation initiative, the SSC WG agreed that the present method of *ex ante* point estimate of BP in the methodology is not satisfactory.

14. The SSC WG agreed to request guidance from the Board with regard to further work in defining the consideration of baseline penetration in small scale methodologies. As a starting point, the Board may wish to consider the following concepts:

(a) Specific methodologies are applicable to countries (or regions of countries where the project activity is implemented) where technology penetration rate is less than X%. ("X" to be determined by the Board in general or per specific technology(ies), statically or dynamically);

(b) Technology penetration rate is defined as either market share or percent of total sales of a technology (e.g., residential lamps) sold during the calendar year that occurred two years prior to the start of the project activity or prior to the start of each CPA in a PoA;

(c) That technology penetration rates are lower than X% can be determined by national or regional data or studies provided by independent third parties or compiled by project participants.

15. Revision of AMS-II.C: the SSC WG agreed to recommend a revision of AMS-II.C as contained in annex 9 with a view to maintain consistency between AMS-II.J and AMS-II.C (e.g., in the consideration of leakages such as cross effects and baseline penetration) as well as the distinction between the two approved methodologies (e.g., simplified monitoring requirements of AMS-II.J with conservative daily lamp utilisation rate and CFL attrition rates versus more intensive monitoring requirements of AMS-II.C with the option to use field data for utilisation hours and lamp attrition rates).

16. Revision of AMS-III.B: as requested by the Board at its forty-sixth meeting (ref EB 46, para. 58), the SSC WG analysed the option to deconsolidate the revised AMS-III.B recommended by SSC WG 19 which had newly covered cases involving multiple fossil fuel use, Greenfield projects and grid electricity use. The SSC WG agreed to recommend a revision of AMS-III.B broadening its applicability (e.g., to cases involving multiple elemental processes using different fuels in the baseline shifting to single fuel use in the project) as contained in annex 10, together with recommending two new methodologies to respectively cover the cases involving grid electricity use and multiple fossil fuel use during the crediting period (see paragraph 9 and 10 above). The revision proposed also requires the application of the "Combined tool to identify the baseline scenario and demonstrate additionality" to determine the baseline scenarios.

17. Revision of AMS-III.F: in response to the submission SSC_294, the SSC WG agreed to recommend a revision of AMS-III.F as contained in annex 11. The recommended revisions provide more guidance regarding the calculation of project emissions from the compost taking into account specific characteristics of the composting technology/measure employed.

18. Revision of AMS-III.Z: in response to the submissions SSC_297 and SSC_298, the SSC WG agreed to recommend a revision of AMS-III.Z as contained in annex 12. The

recommended revisions simplify the requirements to establish the comparability of level of service (e.g., comparability of compressive strength) of baseline bricks and the project bricks.

19. Revision of AMS-III.H: in response to SSC_291, the SSC WG agreed to recommend a revision of AMS-III.H to include additional guidance on use of methane generation potential based on Biochemical Oxygen Demand ($BOD_{5,20}$) as contained in annex 13.

20. Revision of AMS-I.C: in response to the submission SSC_292, the SSC WG agreed not to recommend a revision of AMS-I.C as the submission did not provide convincing arguments to change the project boundary definition of AMS-I.C which currently includes the point of consumption of the renewable energy.

21. Revision of AMS-III.Q: in response to the submission SSC_285, requesting a revision of AMS-III.Q to include utilization of 'waste electricity', the SSC WG agreed not to recommend a revision as the submission did not demonstrate that the diversion of 'waste electricity' historically used for water treatment will not lead to emissions or is accounted for, i.e., the alternative energy source for water treatment comes from a renewable energy source or is accounted for as project emissions/leakage.

E. Response to requests for new methodologies

22. In response to SSC-NM023-rev (Energy efficiency and renewable energy measures in new housing), the SSC WG noted that the revised methodology submission (received just prior to the start of the meeting) was significantly improved from prior versions but still contains outstanding issues primarily concerning the baseline definition. The group agreed to continue working on the methodology with a view to finalise its recommendation at its twenty-first meeting, taking into account expert inputs and feedback from the project proponents.

23. In response to SSC-NM024-rev (Methodology for using recyclable material instead of virgin material), which is for activities that involve recycling facilities to recover material e.g., High-Density Polyethylene (HDPE) and Low-Density Polyethylene (LDPE) residues to displace virgin inputs (e.g., pellets) for the production of finished or intermediary plastic products, the SSC WG agreed to continue to consider the case and finalise it at the next meeting, possibly taking into account an expert input.

24. In response to SSC-NM025 (Emission reduction measures in ferroalloy production) proposing a new methodology for activities resulting in reduced consumption of fossil based energy and carbon materials in a metallurgical process e.g., ferroalloy production, the SSC WG agreed to seek further clarifications from the project proponents on several issues (e.g., further inputs on carbon balance equation, use of renewable reductants, monitoring of ferroalloy and carbon contents of input/output streams).

25. In response to the submission SSC-NM026 (Avoidance of Methane emissions through Manure Composting) proposing a new methodology for activities shifting from existing anaerobic manure management systems to manure composting in new or upgraded facilities, the SSC WG agreed to continue to consider the case for consolidation into AMS-III.F and finalise it at the next meeting, taking into account an expert input.

26. In response to the submission SSC-NM028 (Avoidance of methane emissions through controlled biological treatment of partially decayed MSW), proposing a new methodology for activities aimed at the treatment of MSW disposed at closed SWDS by an aerobic biodegradation process, the SSC WG agreed to seek further clarifications, for example, how to determine the amount, composition and age of the landfilled waste.

27. In response to the submission SSC-NM027 (Optimizing Public Passenger Transport) proposing a new methodology for activities that reduce the total vehicle kilometres travelled through improvements in system management within a defined transit network, the SSC WG agreed to seek further clarifications on the optimization measures covered under the scope of this methodology. The SSC WG also noted that the submission shares many common elements with NM0257, submitted as a large scale methodology but not accepted by the Board.

28. In response to SSC-NM017-rev (Recovery of spent sulphuric acid avoiding CO_2 emissions from its neutralisation with hydrated lime or lime stone), which is for application in manufacturing of chemicals, dyes, pigments, drugs etc., the SSC WG agreed not to recommend the proposed methodology. The proposed methodology has a narrow applicability and does not provide sufficient basis to calculate real and measurable emission reductions; the proposed measures/technology are site-sensitive and project-specific and there is a significant risk that negative emission reductions occur under certain circumstances.

29. In response to SSC-NM018-rev (Switching from fossil fuels to biomass residues or other renewable fuels), proposed as a Type III methodology for substitution of fossil fuels in large kilns, e.g., for clinker or chalk production, the SSC WG agreed not to recommend the methodology. Methodologies for sole use of renewable biomass including biomass residues fall under Type I. In addition, activities utilizing charcoal fine powder collected in charcoal facilities should ensure that the charcoal is produced from renewable biomass source, an aspect not adequately addressed by the proposed methodology. Further, cases involving historical biomass fuel use are included, whereas the methodology does not stipulate any new investment to combust the biomass fuel in the kiln. In the absence of a robust procedure to determine the baseline scenario, the group agreed to not to recommend the methodology.

F. Response to request for clarification - considered at the meeting

30. In response to SSC_293 that requested a clarification on AMS-I.C, the SSC WG clarified that the biomass based Greenfield cogeneration project activity is eligible under AMS-I.C version 14 as long as the baseline scenario complies with the related and relevant requirements in the General Guidance for SSC methodologies.

31. In response to SSC_287, requesting clarification on the emission factor to calculate methane emissions during composting in AMS-III.F, the SSC WG agreed to recommend a revision of AMS III.F (see paragraph 17 above).

32. In response to SSC_290, requesting clarification on the applicability of composting technologies for animal manure treatment for avoiding methane emissions, SSC WG agreed to recommend a revision of AMS III.F to include manure composting (see also paragraph 17 above).

33. In response to SSC_295, requesting clarification on the applicability of AMS-II.D for project activity using low energy intensive alternative raw material, the SSC WG agreed to indicate that AMS-II.D is not applicable to such a project activity as the methodology does not include guidance on consideration of leakage emissions and baseline definitions for the cases involving changes in raw material/product.

34. In response to SSC_296, requesting clarification on the applicability of AMS-III.H to a project activity involving flaring/combustion of already recovered biogas, the SSC WG agreed to clarify that AMS-III.H requires both recovery and flare of biogas as the technology/measure applied and hence is not applicable to the proposed project activity.

35. In response to SSC_299, requesting a clarification on AMS-I.D in the context of a registered project with a significant change in reductions achieved as compared to estimated values

in the registered PDD, the SSC WG referred the author of the submission to the procedures described in annex 30 of EB 24.

G. General guidance

36. As requested by the Board at its forty-first meeting (see annex 13, EB 41), the SSC WG, taking into account an expert input, agreed to recommend a general guidance on sampling and surveys for SSC methodologies as contained in annex 14. The guidance includes:

(a) A basic primer on sampling;

(b) Recommended sampling precision and confidence requirements for three different types of sampling estimates;

(c) Summary of types of samples that could be utilized for CDM activities;

(d) Recommendations on sound sampling practices;

(e) Requirements for what needs to be included in a PDD sampling plan;

(f) Recommendations on how the appropriateness of PDD sampling plans submitted for registration should be evaluated;

(g) Examples for a few Small Scale applications;

(h) Annexes with sampling equations and references/resources.

While the focus of the guidance is on end-use energy efficiency applications, its application is not limited to just these applications. The SSC WG further recommended that the Board may consider a call for public input on the draft document before its approval.

37. In response to the submission SSC_255, the SSC WG analysed the implementation of requirements of "General guidance on leakage in biomass project activities" with regard to the estimation of biomass availability in registered PDDs and agreed to recommend a revision of the guidance document as contained in annex 15. The revisions clarify that the estimation of biomass availability is to be done *ex ante* at the beginning of each crediting period.

38. The SSC WG noted that the Board requested its input with regard to paragraph 43 of the CMP 4 report concerning "explore the use of default emission factors for small-scale end-user energy efficiency methodologies, where appropriate". In this regards the SSC WG requests clarification and further guidance from the Board as to the meaning and intention of default emission factors as it pertains to end-user energy efficiency methodologies. Related to this topic, the SSC WG would also like to suggest that the development of energy efficiency default operating parameters (for example, operating hours for CFLs in commercial applications) and per unit energy savings (for example, per residential appliance unit annual energy savings) could improve the ease of implementing the CDM methodologies. This could involve for example expert inputs for defining a process for developing and maintaining a database of CDM energy efficiency default operating parameters and per unit energy savings values, perhaps building on existing data sources. Development of a first set of default savings values and at least their applicability conditions would follow, also taking into account expert inputs.

39. Taking into account the guidance from the Board at its forty-sixth meeting, the SSC WG agreed to clarify that the wastewater treatment and solid waste treatment projects described in the request for clarification (SSC_271) are not debundled components of a large scale project activity.

H. Schedule of meetings

40. The SSC WG agreed to schedule its twenty-first meeting from **16–19 June 2009** taking into account the schedule of the Board. The deadline for new methodology submissions to this meeting is **21 April 2009** and the deadline for submitting requests for clarifications/revisions for this meeting is **19 May 2009.**

I. 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 twentieth meeting of the SSC WG

Annex 1: AMS-III.AA Transportation Energy Efficiency Activities using Retrofit Technologies

Annex 2: AMS-III.AB Avoidance of HFC emissions in Standalone Commercial Refrigeration Cabinets

Annex 3: AMS-III.AC Electricity and/or heat generation using fuel cell

Annex 4: AMS-III.AD Emission reductions in hydraulic lime production

Annex 5: AMS-II.K Industrial process optimisation for energy efficiency and electricity generation

Annex 6: AMS-III.AE Shift from high carbon intensive fuel mix ratio to low carbon intensive fuel mix ratio

Annex 7: AMS-III.AF Switching from high carbon intensive grid electricity to low carbon intensive fossil fuel

Annex 8: Revision of AMS-II.J

Annex 9: Revision of AMS-II.C

Annex 10: Revision of AMS-III.B

Annex 11: Revision of AMS-III.F

Annex 12: Revision of AMS-III.Z

Annex 13: Revision of AMS-III.H

Annex 14: Draft general guidance on sampling and surveys for SSC projects

Annex 15: General guidance on leakage in biomass project activities