



**CDM: Recommendation Form for Small Scale Methodologies (version 01)**  
*(To be used for presenting questions/proposals/amendments to the simplified methodologies for small-scale CDM project activity categories)*

<i>Date of SSC WG meeting:</i>	30 January–02 February 2012, SSC WG 35
<i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>	Clarification on the applicability of AMS-III.F to project activities involving aerobic composting and mushroom harvesting
<i>Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.</i>	AMS-III.F “Avoidance of methane emissions through composting”
<i>Name of the authors of the query:</i>	Ashwini Malhotra Institution: Weikfield Foods Pvt Ltd <a href="mailto:ashwini_malhotra@weikfield.com">ashwini_malhotra@weikfield.com</a>

**Summary of the query:**

Please use the space below to summarize the query related to SSC methodologies/categories SSC Modalities and Procedures provide recommendation/analysis of the SSC WG.

Original text from PP:

The project participant (PP) wishes to obtain clarification on the applicability of the methodology, AMS III.F/Version 10 with respect to the technology adopted for avoidance of methane emissions in their project in Pune, India.

The technology adopted is the conversion of waste materials to organic manure through composting and mushroom harvesting under aerobic conditions. During this process, two saleable products – mushroom and organic manure – are produced. The production process involves following three stages.

1. Raw waste treatment
2. Mushroom harvesting for degradation of partially degraded waste
3. Transformation of semi compost to final compost *i.e.* organic manure

In the first stage of raw waste treatment, aerobic decomposition of wastes (cereal straw/ sugarcane bagasse) takes place wherein carbohydrates, complex proteins and lignin present in the wastes are broken down and a lignoprotein complex is formed. This complex, thus produced, is partially degraded. It is further degraded by growing button mushroom mycelium (*Agaricus bisporus*) on it. This mycelium belongs to basidiomycetes and has phenoloxidases which can break down the lignoprotein complex. Hence in the second stage, spawn (*Agaricus* culture) is mixed with the lignoprotein complex mass and sent to the growing room, where the button mushroom grows out from the spawn. This mushroom harvesting takes place under controlled conditions and it degrades the partially degraded waste further to semi-compost. The harvested button mushroom is sold in the market. The semi-compost is collected and transported to organic manure processing section, (which is the third stage). Here, the semi-compost is added with culture, turned and sieved to produce the final organic manure and sold, thereafter, in the market.

Therefore in this situation, there are two saleable products from the production process, mushroom and organic manure.

The pre-project and post-project scenario including technical details of the project scenario and the sale

price of the two products are provided in a separate document as Annexure I. The proposed CDM project activity involves enhancement of capacity utilization and expansion in capacity at all the three stages of the production process.

In this context, we have referred to the “Guidelines on Apportioning emissions from Production process between main product and co- and by-products”, Annex 9, EB 56. This guideline provides information on how to address emission reductions calculations, in situations when there are more than one product in a manufacturing process. However, we have noticed that the applicability of this Guideline is restricted only to ACM0017 and AM0089.

Since the methodology AMS-III.F, version 10 is applicable to aerobic composting of biomass, we wish to seek a clarification if this methodology can be applied to the project situation described above and whether the entire emission reduction process can be attributed only to final product *i.e.* organic manure.

**Recommendation by the SSC WG:**

Please use the space below to provide amendments/change (in your expert view, if necessary).

Please refer to paragraph 39 of the meeting report of the SSC WG 35  
<[http://cdm.unfccc.int/Panels/ssc\\_wg](http://cdm.unfccc.int/Panels/ssc_wg)>.

**Answer to authors of query by the SSC WG:**

Please use the space below to provide answer to the authors of the above query.

The small-scale working group of the CDM Executive Board would like to thank the author for the submission.

The SSC WG agreed to clarify that:

With respect to question 1: AMS-III.F is applicable to the underlying project, provided that other provisions in the methodology are also met. For example, it shall be demonstrated that the raw waste used in the project would have otherwise been left to decay anaerobically in a solid waste disposal site (SWDS), or in an animal waste management system (AWMS), or in a wastewater treatment system (WWTS), as specified in the paragraph 1 of AMS-III.F (ver.10).

With respect to question 2: all the emission reductions can accrue to the compost. Furthermore, if more than one entity are involved in the project activities (e.g. the owner of the composting facility and mushroom cultivated are different), a contractual agreement between them shall be provided to indicate who will be the eligible one for claiming CERs.

In addition, since the mushroom harvesting is an important part of the project activity, this should also be taken into account in the additionality assessment.

Signed by the Chair, Ms. Fatou Gaye

Date: 02/02/2012

Signed by the Vice-Chair, Mr. Peer Stiansen

Date: 02/02/2012

**Information to be completed by the secretariat**

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