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CDM Call for public input on the "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site"

GoodPlanet and Gevalor welcome the opportunity to respond to the CDM call for public inputs on "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site"

From our point of view on small-scale composting projects, we raised global comments on the imbalance between composting and other waste disposal projects and specific comments on the revised specifications included in the tool.

Overall, we strongly thought that clarifications on this tool were needed. However, the revised version of the tool seems really restrictive, especially for composting projects.

Background

Gevalor and GoodPlanet, two French non-profit organizations, have been collaborating since 2006 for a composting project located in Mahajanga (Madagascar). The composting process is mainly manual, permitting to employ around one hundred people (which were often waste pickers before being employed).

The project is registered following the Verified Carbon Standard (project VCS 353) and uses the CDM small-scale methodology III-F : Avoidance of methane emissions through composting and the corresponding "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site".

Following the success of this project and the opportunity to replicate it in medium-sized cities in similar contexts (cities of at least 100 000 inhabitants in tropical climate zone with waste treatment issues), we are going to launch a project called Africompost in multiple African countries. We have already initiated the project by technically supporting a project operating in Beira (Mozambique). The PDD for this project will be soon submitted to VCS and/or CDM.

Global comments

As stated in an article from C. Rogger et al.[1], whereas composting projects contributes to sustainable development, they often face the barriers of financial stability, even with the help additional carbon financing:

[1] Rogger, C., et al. Composting projects under the Clean Development Mechanism: Sustainable contribution to mitigate climate change. Waste Management (2010), doi:10.1016/j.wasman.2010.09.007

"Originally developed for landfill gas projects, the model used in this methodology discriminates composting because the allocation of emission reduction certificates is postponed which reduces the projects' financial attractiveness considerably. In turn, landfill gas projects are treated preferentially as emission reduction warrants are not deferred."

This revised tool permits to clear some important methodological specifications, but it seems much more restrictive for small-scale projects.

Methodological comments

- **Page 3: Procedure to determine whether a stockpile can be considered a SWDS**

a/ The procedure seems divided between quantitative and qualitative assessments, making the justification open to subjective interpretation. More specifically:

Step 1: Units for volume and surface need to be precised.

Step 2: How to assess precisely if the solid wastes are compacted?

Step 3: Moisture measurement could be asked (consisting in taking samples of the solid waste and weighing these samples before and after drying). And overall, waste moisture may strongly vary with the seasons, which means that waste can look moist in rainy season and will be dry in summer.

Moreover, the assessment of rapidly degradable organic material may vary from "fresh" wastes (which have just been stockpiled) to "old" wastes (deposited for some time). In the latter case, it seems clear that the rapidly degradable organic material is already degraded and the wastes do not appear to be rapidly degradable.

The procedure shall precise these different methodological points.

b/ In terms of presentation, the procedure is quite difficult to understand. We suggest adding a decision tree (in annexe for example) and/or summarizing the different steps in the text while precising the methodology in footnote page.

- **Page 4**

a/ §3:

In terms of presentation, the two last sentences of the third paragraph shall be put in footnote page: "For application A, this time period may […] the first crediting period of the proposed CDM project activity."

b/ PECH4,SWDS, y :

These project emissions generated from waste disposal at a SWDS are not included in the methodology III-F. Project emissions are indeed decomposed in compost emissions, transport emissions, energy emissions and runoff water emissions.

Which formula shall we consider after approval of this revised tool?

- **Page 6**

a/ Whereas we understand the calculation of this parameter - revised to be more conservative - we consider that such a change for small-scale projects like the one in Mozambique (less than 150 000tCO2e over a 10-year period) would raise an additional barrier to access carbon financing, as they lose a high potential of ER. In the case of Mozambique project, φy would vary from 0.9 (with older version of the methodology) and 0.58 with this revised assessment (calculated coefficient), or probably 0.7 with the default value. This would also lead project proponent to use default value instead of calculated value.

b/ What does the parameter k (factor f) mean? Is it for "decay rate"? In that case, which type of waste shall we consider for this decay rate?

- **Page 8**

The formula for Wj,i asked to collect the last 3 samples. The sampling frequency (regular) must be specified in order to avoid errors due to seasonal variations. ditto for Wj,x .

- **Page 9 (and 14)**

A new parameter BMP (Biomechanical methane potential) appears, which is "Applicable if only residual waste is disposed and if the project participants wish to measure DOCf".

In case of composting process, does this parameter can be applied? If yes, shall we apply it to the non-compostable fraction of solid waste (result of the different sorts occurring before and after composting: plastics, glass, inert, etc.), assuming that all organic matter is composted (including limbs for example)?

- **Page 11**

A/ MCF: How to accurately measure the parameters d and hw (respectively depth of the SWDS and height of the water table)? By sampling?

Indeed, in the absence of accurate historical data, it seems difficult to measure the depth of the SDWS, not knowing how deep wastes are in the case of decomposed waste in depth.

Similarly, the higher the water table is, the higher MCF is. However, the height of the water table hw may vary spatially and temporally. Precision on assessment methodology shall be added.

b / DOCj (and more globally in the whole document) : it should be specified whether the weight of the waste is considered on a dry or wet basis.

- **Page 15:**

The monitoring frequency for the parameter $p_{n,j,x}$ is a minimum of 3 samples every 3 months.

The precedent version of the tool precised: "*The size and frequency of sampling should be statistically significant with a maximum uncertainty range of 20% at a 95% confidence level. As a minimum, sampling should be undertaken four times per year*".

This change would have a direct impact not only on frequency but also on the mass of samples to characterize. Furthermore, in case of small-scale composting projects, it seems difficult to keep pace such a monitoring frequency.

Then, shall we follow the General guidelines for sampling and surveys for small-scale CDM project (Version 01)[2]?

Conclusion

We thank the CDM Meth Panel to permit such a public input on the "Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site".

Whereas this revised tool permits to clear some important methodological specifications, it seems much more restrictive for small-scale projects.

In conclusion, we totally agree with the suggestions of Rogger, C., et al. :

"*composting projects have a higher potentials for both GHG reduction and contribution to sustainable development than landfill gas projects. At the same time, they are financially dis-incentivised by the UNFCCC, a paradox which could be solved by two means: first, by modifying the methodology for the calculation of the emission reductions in order to generate high cashflows earlier on, second, by remunerating projects for their sustainability contributions. The latter could be assured by sustainability labelling organisations making projects eligible for their sustainability labels or, in a more comprehensive manner, by taking into account the sustainability contributions in the crediting process of the UNFCCC under a post-Kyoto agreement.*"

[2] http://cdm.unfccc.int/EB/050/eb50_repan30.pdf