nachdenken • klimabewusst reisen
atmosfair

Head and Members of the CDM Executive Board
Mr. Maosheng Duan
Chairman
UNFCCC Secretariat
Martin-Luther-King-Strasse 8
D 53153 Bonn
Germany

atmosfair gGmbH

Headquarters: Kaiserstr. 201
D-53113 Bonn

Postal Address: Zossener Straße 55–58
D-10961 Berlin

Ph.: +49 (0)30 6273550 - 0
Fax: +49 (0)30 6273550 - 29

E-Mail: info@atmosfair.de

Webseite: www.atmosfair.org

Amtsgericht Bonn
HRB 13789

Executive Director:
Dr. Dietrich Brockhagen

Bank Details:
GLS Gemeinschaftsbank eG
Acc. No. 4009 1533 00
BLZ 430 609 67
BIC GENODEM1GLS
IBAN DE06 4306 0967 4009 1533 00

Tax ID No.: 205/5783/1612

To cdm-info@unfccc.int
From info@atmosfair.de
Date 05.04.2012

Subject Call for input on the draft best practices examples

Honourable Members of the CDM Executive Board,

atmosfair welcomes the opportunity to comment on the DRAFT BEST PRACTICES EXAMPLES FOCUSING ON SAMPLE SIZE AND RELIABILITY CALCULATIONS (eb66_propan27).

While we agree that a conservative approach needs to be applied for calculation of emission reductions to maintain environmental integrity, we would also like to draw the attention to the question whether dispersed activities such as cookstove, domestic biogas or CFL projects may after all still be economically feasible when applying the new sampling standard and the proposed best practice examples for baseline determination and especially during the monitoring campaigns.

High transaction costs
In the discussion about adequate monitoring & evaluation costs of international development cooperation projects, usually a max. of 5-10% of the project budget is considered to be adequate[1]. Now take the example of a cookstove project where CDM revenues are the only external revenue. Monitoring campaigns that follow the new rules can easily cost several ten thousands of Euros. Let alone costs for the other monitoring parameters, preparation of monitoring report, and verification by the DOE. Total costs hence can easily be 50,000 Euro or more per monitoring period. Especially since DOEs have already increased their charges for projects which include sampling due to the higher workload and experts they need to have in the team.

Assume 50,000 Euro costs per monitoring period- the share of transaction costs on CDM revenues exceed in most of the cases the 10% threshold typically for international cooperation projects (see table below for two different price scenarios, figures in red are the scenarios where the monitoring and verification costs are prohibitively high).

	Share of monitoring transaction costs on CDM revenues	
CERs p.a.	@5 € per CER	@ 10 € per CER
10,000	100%	50%
25,000	40%	20%
50,000	20%	10%
100,000	10%	5%
200,000	5%	2.5%

A cookstove or domestic biogas SSC project usually is not generating more than

[1] See Bormann/ Stockmann, 2009: Evaluation in German Development Cooperation

50,000 CERs per year. This means that a substantial part of the revenues is eaten up by the monitoring. The system is feeding itself. Is that what CDM was intended for? For PoAs, economies of scale are still far away. DOEs charge record sums for validation & verification, UNFCCC puts more scrutiny than ever, and sampling requirements are stricter than for normal SSC projects. It is therefore highly questionable whether PoAs will ever pay off.

Time and capacity tied up in monitoring
Experience shows that monitoring will always affect the resources of local partners; exhaustive efforts needed for monitoring will therefore reduce the impact of a project or even make it impossible. Time and capacity is tied up in complicated intellectual debates about interpreting the latest monitoring rules. This time could be much better used in bringing cookstoves or other small scale appliances to the people.

Challenges on the ground
In the case of LDCs with insufficient infrastructure, sampling requirements may even be simply impossible to fulfil. Imagine a large country like Ethiopia where over 80 languages are spoken and where it can easily take many days to access remote areas even during the dry period, For monitoring surveys, at least a contact will have been established with each household of the basic population. But baseline surveys where the basic population consists in all potential beneficiaries will in many cases just be impossible to conduct.

Or the example of Lesotho: In one day it is possible to do one to two water boiling tests in households. Supposed there are 70 Water Boiling Tests and a team of 4 persons that can be involved this would take more than three weeks. Our project partners in the country are very small enterprises. So involving 4 people for 3 weeks in monitoring activities would mean no stove sales in that period and no other project activities. This is extremely difficult.

Plea for simplification
We therefore urge the EB to continue the process of simplification also for sampled parameters or to differentiate the sampling requirements depending on the size (i.e. the amount of CERs generated). What has been right for not monitored baseline parameters cannot be wrong for parameters monitored. This EB process of simplification has successfully triggered a record inflow of projects that are highly sustainable: the question is whether the EB really wants that these projects take off!

Need for more time
To be clear: we are not putting the case for no monitoring at all. We support a robust monitoring approach also for dispersed project activities. But monitoring rules should be adequate to the context.
The sampling standard and best practice examples as they are may become a prohibitive barrier for the projects they were intended to help. We suggest that the whole sampling issue needs more time in order to become a user friendly and effective tool to support climate protection activities!

Yours sincerely

Florian Zerzawy, Xaver Kitzinger, Robert Müller, Barbara Wagner, Maren Kuegler
Project developers at atmosfair gGmbH

NB: Regarding the specific suggestions on the draft best practice examples, please see the filled table enclosed.

Template for comments

Date:	Document:

TABLE FOR COMMENTS

0	1	2	3	4	5	6	7
#	**Initials**	**Para No./ Annex / Figure / Table**	**Line Number**	**Type of comment** **ge** = general **te** = technical **ed** = editorial	**Comment** **(including justification for change)**	**Proposed change** **(including proposed text)**	**Assessment of comment** **(*to be completed by UNFCCC secretariat*)**

Template for comments

Date:	Document:

0	1	2	3	4	5	6	7
#	**Initials**	**Para No./ Annex / Figure / Table**	**Line Number**	**Type of comment** **ge** = general **te** = technical **ed** = editorial	**Comment** **(including justification for change)**	**Proposed change** **(including proposed text)**	**Assessment of comment** **(*to be completed by UNFCCC secretariat*)**
		Para 16 to 48		**te**	The equations provided in para 16 to 48 take into account the precision requirement of 10% as a *relative* unit as also required by the sampling standard (EB 65 Annex 2). While applying this equation, we noticed that it leads to a steep increase in the number of units to be sampled if the parameter of interest (i.e. the proportion p) is low. ***Explanation/ Example:*** The example in the draft best practice document refers to the "proportion of cook stoves in operation" which in the end is a multiplicator for calculating emission reductions, i.e. CERs per stove deployed are multiplied with the fraction of the stoves that are in operation. The potential to overestimate emission reductions in *absolute* terms however is much higher if the proportion p is high, as can be seen from the following example: Assume (as in the example): Stoves deployed: 640,000 CERs per stove deployed/ year: 2 Case 1: High p value Expected p value: 80% Required sample size (simple Random Sampling, 90/10 confidence/precision, para 16): 68 Stoves in operation as determined by sample survey: 80% +/- 10%(i.e. value is between 72% and 88%) CERs generated: 80% * 2 * 640,000 = 1,024,000 Potential overestimation: 8% * 2 * 640,000 = 102,400 CERs Case 2: Low p value Expected p value: 20% Required sample size (simple Random Sampling, 90/10 confidence/precision, para 16): 1,081 Stoves in operation as determined by sample survey: 20% +/- 10%(i.e. value is between 18% and 22%) CERs generated: 20% * 2 * 640,000 = 256,000 Potential overestimation: 2% * 2 * 640,000 = 25,600 CERs. Assuming we have correctly applied the equation, it becomes clear that for a low p value, the effort for the PP to determine the parameter increases substantially while the potential overestimation in absolute terms decreases.	We would therefore suggest to change in both the sampling standard and in the best practice document that within a given confidence level, the precision should be +/- 5% in absolute terms. In the example above, the potential overestimation would then be the same: 5% * 2 * 640,000 = 64,000 CERs, regardless of whether p = 80% or p = 20%. The required sample size would also be the same for both cases. For smaller projects however the absolute precision should always be +/- 10% as the potential overestimation in absolute terms also decreases.	

Template for comments

Date:	Document:

0	1	2	3	4	5	6	7
#	**Initials**	**Para No./ Annex / Figure / Table**	**Line Number**	**Type of comment** **ge** = general **te** = technical **ed** = editorial	**Comment** **(including justification for change)**	**Proposed change** **(including proposed text)**	**Assessment of comment** **(*to be completed by UNFCCC secretariat*)**
		Para 16 to 48		**te**	As can be seen from the example above, the definition of a proportional parameter becomes crucial if one wants to avoid extremely high sample sizes and precision is defined in relative terms. Is that the intention of the EB? For binary parameters, such as cookstoves in operation or not in operation, the sample size depends on whether the parameter is defined as “in operation” or “not in operation”. Example: Instead of assuming 80% cookstoves in operation as in the provided example, we are applying the equation to an assumed 20% of cookstoves NOT in operation. As a result, we receive a sample size of 1,081 instead of 68. It is also clear why this is the case: The confidence interval is much smaller as mentioned above. In the case of 95% of cookstoves in operation, the difference becomes even more obvious: 15 households to sample for 95% of cookstoves IN operation against 5,101 for 5% NOT IN operation. Note that for the calculation of emission reductions, the relevant value is the share of cookstoves in operation. Hence, from our point of view, it would not make sense to calculate a sample size for cookstoves not in operation even if the parameter is defined in such a way (e.g. as “drop-outs”)	As above, precision should be in absolute terms. Or alternatively, clarification that the definition of the parameter of interest should be in a way so that it is the relevant value for calculation of emission reductions.	
		Para 51 to 57		**te**	Applying the proposed equation with practical values provides some strange results. For example, assume we are testing efficiency of a cookstove and expect a mean efficiency of 40% with a standard deviation of 2%, we would only need to do 1 test to reach the 90/10 confidence/precision criteria. This seems odd since you cannot even determine SD when you have only 1 value.	Defining a minimum sample size of 10 to ensure that some statistical analysis can be done	

Template for comments

Date:	Document:

0	1	2	3	4	5	6	7
#	**Initials**	**Para No./ Annex / Figure / Table**	**Line Number**	**Type of comment** **ge** = general **te** = technical **ed** = editorial	**Comment** **(including justification for change)**	**Proposed change** **(including proposed text)**	**Assessment of comment** **(*to be completed by UNFCCC secretariat*)**
		Para 77 to 88		**te**	Multistage sampling: Apparently in equation 34 different sizes of the clusters seem to have a very strong influence on the required number of clusters. In case PPS (probability proportional to size) sampling is applied in step 1 (selection of clusters), can the number of clusters be reduced since then every household has the same probability of being selected, similar to a simple random sampling?	Provide example for multistage sampling where PPS at step 1 (selection of clusters) is considered.	
		Para 186 to 189		**te**	According to the draft, the equation (83) should be applied if either N*p or N*(1-p) are smaller than 10. However, equation (83) does not take into account the population size N. Example: We have 500 biogas units installed in year 1. We assume that after the first year 99% are still in operation. The N*p and N*(1-p) check gives 500*0.99 = 495 and 500*0.01 = 5. Hence, we need to apply equation 83. The equation gives us a sample size of 38,121 biogas units to be checked if we want to achieve 95/10 confidence/precision, while we only have 500 units to check.	Replace example and define minimum sample sizes for small N*p / N*(1-p) values N < 100: 10 N < 500: 25 N < 1000: 50	