 CDM: Response form for request for clarification on Approved Methodologies (version 01.1)	
<i>Date of Meth Panel meeting:</i>	24 - 28 September 2007
<i>Title and number of request for clarification</i>	Request for clarification with regard to applying K factors and sludge / AM_CLA_0051
Summary of the query:	
Please use the space below to summarize the request for clarification on the related approved methodologies.	
<p>Clarification on the Following issues on the “Tool for determination of methane emissions avoided from dumping waste at a solid waste disposal site” referred in AM0025:</p> <p>a) The possibility of applying monthly K_j factors to reflect the actual waste decomposition rate and ensure more accurate estimation of baseline emissions for countries that get uneven amount of rainfall over the year. The example of some cities is given to demonstrate that if a common yardstick is applied w.r.t. the average rainfall over the year (i.e. $<$ or $>$ 1000 mm), then the treatment is same for the cases which are close to 1000 mm (say 999 mm) or which are far below than 1000 mm (say 100 mm). This leads to inaccurate estimation of K_j factors. To avoid such a situation, several rainfall categories (250 mm- 500 mm, 501 mm-750 mm, 751 mm-999 mm) should be created and depending upon annual average rainfall in the region, specific values of K_j factor for relevant category should be chosen.</p> <p>b) Reasons for the exclusion of Sewage Sludge from the IPCC 2006 (Table 3.3, chapter 3, volume 5) category of rapidly degrading waste where Food Waste still exists, and guidance on how to account for sludge that goes to landfill for disposal.</p>	
Recommendation by the Meth Panel:	
Please use the space below to provide amendments /changes (in your expert view, if necessary).	
<p>a) The table 3.3 in chapter 3 of volume 5 of IPCC 2006 guideline document gives the range of values for temperate and tropical climates however exact value of K_j to be selected for smaller range of average rainfall are not given (as proposed in the request). IPCC, in its document, encourages the countries to determine half-life for specific wastes generated and disposed under country-specific ambient conditions and estimate the K_j values based on half-life of waste.</p> <p>As already mentioned in the tool, in case project participants use the country-specific value or K_j factor for different categories beyond what is given in methodology in their draft CDM-PDD, either derived from their own laboratory tests or collected from the organization responsible for reporting of national GHG inventory, it is expected that they will apply for the deviation from methodology or revision to the approved methodology with the detailed data on which their draft CDM-PDD is based on, before using this value.</p> <p>Please note that if the K_j factor is taken based on monthly values, then parameter x and y representing year in equation 1 will also change accordingly and the equation of the first order decay model would have to be worked out completely.</p> <p>b) The categories listed in the table on page 6 of the “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site” are by the source of the waste. Sludge also has its source and depending on the source it can be classified in that category. In addition, it is commonly understood that sewage sludge, unless it is an exceptional case, is not disposed in the land fill. It is generally treated in clarifier and by other aerobic waste treatment methods or in bio-digesters. Even if digested or aerated sludge is sent to landfill, the methane emissions are not expected from such sludge. This is why the sewage waste was excluded from rapidly decaying waste category in table of default values of K_j. Based on the clarification request, the tool is being amended to include sewage sludge as part of the rapidly degrading waste.</p>	

Answer to authors of the request for clarification by the Meth Panel :

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

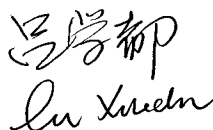
- a. As already mentioned in the tool, in case project participants use the country-specific value for K_j factor in their PDD, either derived from their own laboratory tests or collected from the organization responsible for reporting of national GHG inventory, it is expected that they will apply for the deviation from the approved methodology or request a revision of the approved methodology before using this value ensuring that the given formulae based on yearly averages are converted appropriately if the period of averaging is changed from yearly to shorter intervals.
- b. It is commonly understood that sewage waste, unless it is an exceptional case, is not disposed in the land fill. It is generally treated in clarifier and by other aerobic waste treatment methods or in bio-digesters. Even if digested or aerated sludge is sent to landfill, the methane emissions are not expected from such sludge. This is why the sewage waste was excluded from rapidly decaying waste category in table of default values of K_j. Considering that situations of disposal of sewage sludge sent to land fill may exist, the tool is being amended to include sewage sludge in the rapidly degrading waste.



Signature of Meth Panel Chair

Date: 28/09/2007

(Akihiro Kuroki)



Signature of Meth Panel Vice-Chair

Date: 28/09/2007

(Xuedu Lu)

Information to be completed by the secretariat

F-CDM-AM	AM_CLA_0051
Name of the authors of the query:	JQA
Date when the form was received at UNFCCC secretariat	28 September 2007
Date of transmission to the EB	28 September 2007
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Values obtained from 2006 IPCC Guidelines

Table 6.3 includes default MCF values.

TABLE 6.3 DEFAULT MCF VALUES FOR DOMESTIC WASTEWATER			
Type of treatment and discharge pathway or system	Comments	MCF ¹	Range
Untreated system			
Sea, river and lake discharge	Rivers with high organics loadings can turn anaerobic.	0.1	0 – 0.2
Stagnant sewer	Open and warm	0.5	0.4 – 0.8
Flowing sewer (open or closed)	Fast moving, clean. (Insignificant amounts of CH ₄ from pump stations, etc)	0	0
Treated system			
Centralized, aerobic treatment plant	Must be well managed. Some CH ₄ can be emitted from settling basins and other pockets.	0	0 – 0.1
Centralized, aerobic treatment plant	Not well managed. Overloaded.	0.3	0.2 – 0.4
Anaerobic digester for sludge	CH ₄ recovery is not considered here.	0.8	0.8 – 1.0
Anaerobic reactor	CH ₄ recovery is not considered here.	0.8	0.8 – 1.0
Anaerobic shallow lagoon	Depth less than 2 metres, use expert judgment.	0.2	0 – 0.3
Anaerobic deep lagoon	Depth more than 2 metres	0.8	0.8 – 1.0
Septic system	Half of BOD settles in anaerobic tank.	0.5	0.5
Latrine	Dry climate, ground water table lower than latrine, small family (3-5 persons)	0.1	0.05 – 0.15
Latrine	Dry climate, ground water table lower than latrine, communal (many users)	0.5	0.4 – 0.6
Latrine	Wet climate/flush water use, ground water table higher than latrine	0.7	0.7 – 1.0
Latrine	Regular sediment removal for fertilizer	0.1	0.1

¹ Based on expert judgment by lead authors of this section.

TABLE 6.8 DEFAULT MCF VALUES FOR INDUSTRIAL WASTEWATER			
Type of treatment and discharge pathway or system	Comments	MCF ¹	Range
Untreated			
Sea, river and lake discharge	Rivers with high organics loadings may turn anaerobic, however this is not considered here.	0.1	0 – 0.2
Treated			
Aerobic treatment plant	Must be well managed. Some CH ₄ can be emitted from settling basins and other pockets.	0	0 – 0.1
Aerobic treatment plant	Not well managed. Overloaded	0.3	0.2 – 0.4
Anaerobic digester for sludge	CH ₄ recovery not considered here	0.8	0.8 – 1.0
Anaerobic reactor (e.g., UASB, Fixed Film Reactor)	CH ₄ recovery not considered here	0.8	0.8 – 1.0
Anaerobic shallow lagoon	Depth less than 2 metres, use expert judgment	0.2	0 – 0.3
Anaerobic deep lagoon	Depth more than 2 metres	0.8	0.8 – 1.0

¹ Based on expert judgment by lead authors of this section.