CARIBBEAN WATER AND WASTEWATER ASSOCIATION

REGISTERED OFFICE: C/O WASA, Farm Road, St. Joseph, Republic of Trinidad and Tobago, W.I.
Tel: (868) 645-8681, (868) 662-2302/7 Ext. 3747
Tel/Fax: (868) 645-7849; E-Mail: cwwa@carib-link.net

November 5, 2013

Chair and Members of the Small-Scale Working Group
UNFCCC Secretariat
Martin-Luther-King-Strasse 8
D 53153 Bonn
Germany

Honourable Chair and Members of the Small-Scale Working Group,

Subject: Automatic additionality - Positive list for Small-scale. Wastewater and/or sludge treatment CDM activities, AMS-III.H.

Honourable Chair and Members of the Small-Scale Working Group,

The **Caribbean Water and Wastewater Association** thank you for the opportunity to provide our comments on Call for public inputs on "Information note - Questions for public inputs on expansion and framework for assessing graduation of the positive list of technologies" (from 07 October to 06 November 2013, 24:00 GMT).

The Caribbean Water and Wastewater Association is committed to the advancement of the science, practice, and management of water supply and waste disposal for the benefit of Caribbean people through the development of human resources, public education, and professionalism, as well as promotion of appropriate technologies in the water, wastewater, and solid waste sectors.

The Caribbean Water and Wastewater Association suggest the following:

To expand the current positive list by adding (up to 60 ktCO2/year) in paragraph 2 and by including a new paragraph (2.f) in the current Guidelines on the Demonstration of Additionality of Small-scale Project Activities, v09.0, stating[1]:

Paragraph 2. Documentation of barriers, as per paragraph 1 above, is not required for the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds (e.g. installed capacity up to 15 MW, emission reductions up to 60 ktCO2/year). The positive list comprises of:

2.f. Project activities recovering biogas resulting from anaerobic decay of organic matter in wastewaters through introduction of anaerobic treatment system for wastewater and/or sludge treatment. These project activities apply small-scale methodology, AMS-III.H.

The reasons why we propose to include small-scale wastewater and/or sludge treatment activities in the positive list are as follows:

- To reduce transaction costs of consultancy work/payment – project by project approach is costly (barrier/investment analysis needs to be carried out).

[1] http://cdm.unfccc.int/Reference/Guidclarif/meth/methSSC_guid05.pdf

- To avoid unnecessary effort (positive list or standardized baseline submissions require DNAs understanding and approval, DOEs assessment report (if applicable), and consultancy payment)
- To attract potential project developers in the sector as this type of activity is one of the most profitable under the CDM –methane reduction activities can reach 60%[2] returns on investment (assuming flaring component only/requested issuance).
- To support the environment in countries/cities facing human health issue such as spread of water-borne diseases.

What is the scope?

- Small-scale methodology AMS-III.H, with reductions less than 60 $ktCO_2$/year.

What is the approach? How to decide?

- Based on whether there are regulations requesting the collection and treatment of sewage, industrial and agricultural effluent. In case, regulations exist to demonstrate whether if they are being enforced. Refer to decision making diagram 1 in Annex 1.
- Based on other barriers (lack of public investment, high costs of operation and maintenance, and others) for implementation faced by such activities which could be assessed by the penetration rate of waste water treatment technologies. For example, if a particular waste water treatment activity exists in the country and in a particular sector, then to question how has it been possible and how has it been funded. If funded by grants, then the proposed waste water treatment activity is deemed to be additional.

Case study- How does this approach apply to the Caribbean region[3]?

In the wider Caribbean region, only less than 10% of domestic wastewater from the wider public is treated in any centralized treatment plant. There are higher levels of treatment among institutions like hotels, private and public universities and colleges and larger commercial institutions that cater for non-residential type domestic waste. These institutions meet demands other than regulatory demand, such as to be abreast with business competition among hotels and private businesses. However, the quality of operations and maintenance to ensure a required quality effluent at these decentralized plants is questionable as there are seldom any regulatory monitoring systems for effluent quality as penalties are not applied.

In overall the key barriers for implementing wastewater treatment and disposal activities are the following:

1. Lack of enforcement of regulations

Weak compliance in general has been highlighted in the above paragraph. From table 1 below, it is clear that ***standards*** for certain critical parameters vary from country to country across the wider Caribbean region. The following observations were made:

- Trinidad and Tobago is the only country which sets separate standards for environmentally sensitive (Class I) and non-sensitive areas (Class II);
- Cuba and Guadeloupe set lower limits for BOD;
- Only Jamaica have a standard for residual chlorine;
- The pH standard for all countries that specify it, is in line with Annex III of the Protocol on Marine Pollution from Land-Based Sources and Activities under the Cartagena Convention; and

[2] UNEP-Risoe, 2012, p12. *Penny Wise Pound Foolish* http://www.uncclearn.org/sites/www.uncclearn.org/files/inventory/unep210.pdf
[3] No waste water treatment project registered as CDM activity.

- Similarly, the faecal coliform standard applied by most countries complies with Annex III requirements.

Table 1: Effluent Guidelines and Standards for Selected Countries in the Caribbean Region[4]

	BOD5 mg/l	TSS mg/l	pH	F-Coli #/100 ml	T-Coli #/100 ml	Res. Cl mg/l
Bahamas[a]	<30	<30	6-9	+>85% removal of BOD and TSS		
Barbados	<25	<25				
Cayman Islands	<30	<30	disposed by deep well injection			
Cuba	<50	<50	6.5-8.5	<200	<2000	
Guadeloupe[b]	<40	<30				
Jamaica	<20	<30		<200		<1.5
Puerto Rico	<30	<30	6-9	+>85% removal of BOD and TSS		
St. Lucia	<25	<30				
Trinidad[c]	<25	<30	6-9	<200		
Trinidad[d]	<125	<175	6-9	<400		

a EPA standards have been adopted in the Bahamas and Puerto Rico
b Effluents from aerated lagoons
c For discharge into inshore seas and environmentally sensitive areas
d For discharge into environmentally non-sensitive areas

2. Lack of investment

In the wider Caribbean region, sewage treatment has suffered from too little ***investment*** as water supply and treatment continues to be given greater priority to wastewater collection and treatment[5]. The negative impacts from the low level of sewage treatment are well documented[6].

3. High operating and maintenance costs of wastewater treatment and disposal

Cost of wastewater treatment and disposal is influenced significantly by volume of wastewater generated. The figure below shows estimated cost of wastewater treatment and disposal in the Caribbean region. The annual operation and maintenance cost is up to 30% the cost of construction and installation.[7]

[4] UNEP-CEP (2009) Assessment of Wastewater Management in the Wider Caribbean. Prepared by Resource Mobilization Advisors.

[5] UNEP/CAR-RCU (2009) Financial assessment for wastewater treatment and disposal (WWTD) in the Caribbean Report. Prepared by the Caribbean Institute for Environmental Health (CEHI), http://www.gefcrew.org/document-center/finish/3-project-preparation-documents/6-financial-assessment-for-wastewater-treatment-and-disposal-wwtd-in-the-caribbean/0

[6] Assessment of wastewater management technologies in the wider Caribbean Region http://iwlearn.net/iw-projects/3766/technical-reports/view

[7] UNEP/CAR-RCU (2009) Financial assessment for wastewater treatment and disposal (WWTD) in the Caribbean Report. Prepared by the Caribbean Institute for Environmental Health (CEHI), http://www.gefcrew.org/document-

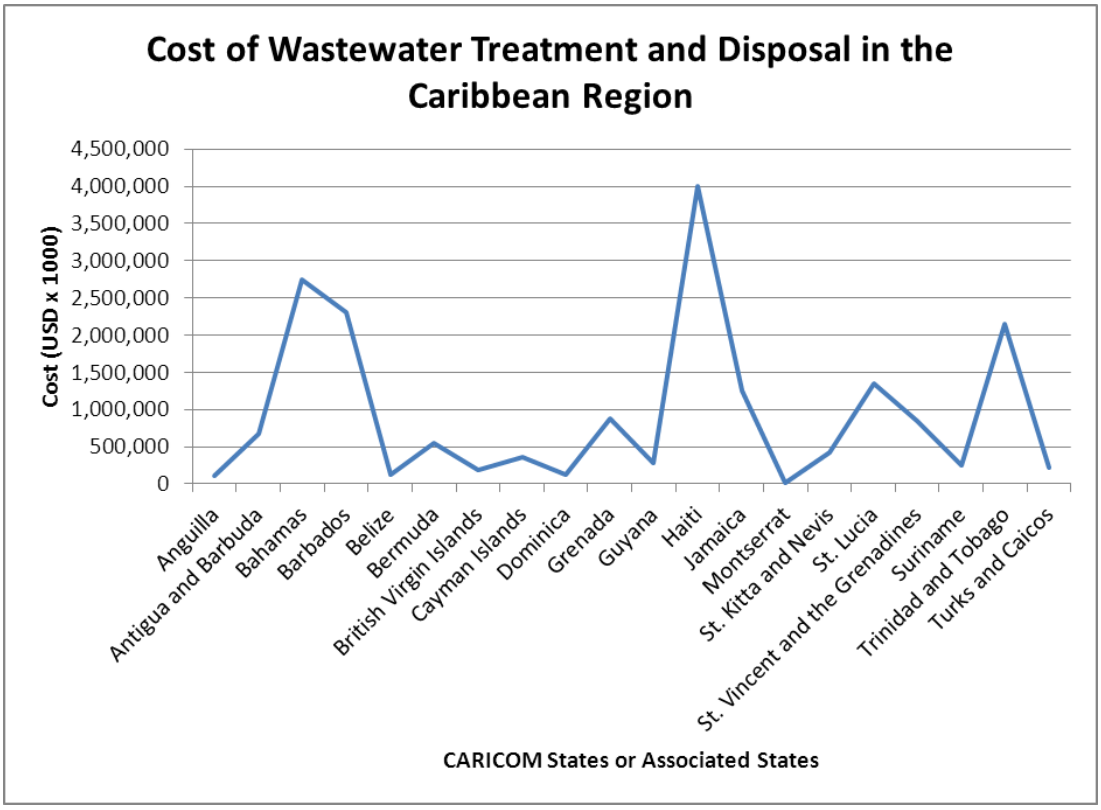
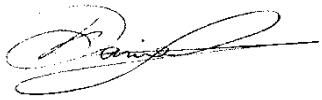


Figure: Estimated cost of wastewater treatment and disposal in the Caribbean region

Alphonsus Daniel

CWWA , V.P



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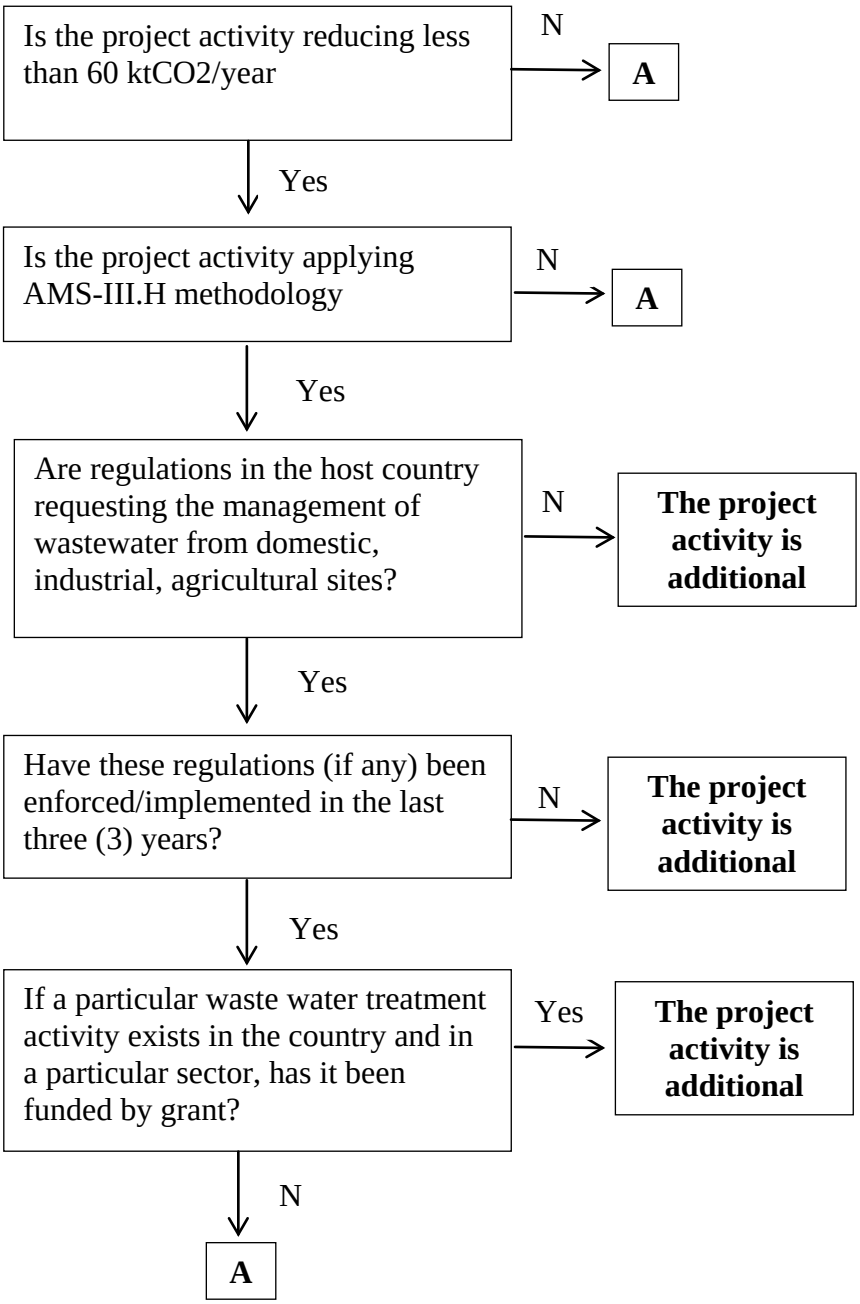
Annex 1

Diagram 1 – Positive list for Wastewater and/or sludge treatment CDM activities, AMS-III.H

Legend:

A

Means use other means to demonstrate additionality such as *Guidelines on the demonstration of additonality of small-scale project activities*.



For further information please contact Mr. Alphonsus Daniel, Vice President of the CWWA Secretariat, Tel: 473 440 1939, 473 407 3837 or via e-mail: altheus@spiceisle.com, adaniel@dandplumbingsol.com.