REPORT ON THE KNOWLEDGE, PRACTICES AND ATTITUDES (KAP) SURVEY





Report on the Knowledge, Practices and Attitudes (KAP) Survey

GEF/CREW Caribbean Regional Media Workshop

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Background and Introduction

Over the period November 25th to 29th November 2013, GEF CReW Project hosted a regional media sensitization workshop on wastewater in Georgetown, Guyana. The objectives of the workshop designed primarily for media journalists and media practitioners were:

- 1. To deepen the knowledge and expertise of environmental journalists on wastewater issues and management in the Wider Caribbean Region
- 2. To increase media coverage about the challenges of wastewater management, impacts on human and environmental health, and solutions, use of appropriate technologies, low-cost alternatives and use of treated water
- 3. To raise awareness on the GEF CReW Project and issues of sustainable financing for wastewater management
- 4. To build a regional community of journalists, writing regularly about water and wastewater issues
- 5. To gain a better understanding of how to provide information resources to journalists to better enable coverage.



Photo 1: Participants at workshop

Twenty-eight journalists and media practitioners attended the workshop. The participants engaged in the following key activities as presented below:

Day 1	Day 2	Day 3
Opening Ceremony	Presentation on 'Wastewater	Four presentations:
Remarks by the GEF/CReW	Management and the LBS	'Wastewater as a Resource for
Project Coordinator	Protocol'	Agriculture'; 'Wastewater as a
Completion of the Knowledge	Viewing of UNEP CEP's video	Resource'; 'Water and Waste
Attitudes and Practices Survey	'Peep into the Deep'	Management in the Caribbean:
(KAPS) questionnaire by		Cooperation for Action' and

Day 1	Day 2	Day 3
<mark>participants</mark>	Two site visits - Banks DIH	'Funding the Wastewater Sector
Presentation on the relationship	Limited's Wastewater Treatment	 Different Innovative
between wastewater and	Facility at Caribanks Complex,	Approaches'.
various sectors - 'Wastewater	and GWI's Mandela Facility	A facilitated session using the
and Health' & Wastewater and	which is to be improved.	World Café method in which
Tourism'		three questions were explored.
Presentation on Wastewater-		
Issue Saliency and Agenda		
Setting for the Media		
A facilitated session using the		
Single card method to seek to		
determine the issues faced by		
regional journalists in writing		
about wastewater issues		

The highlighted areas and in particular the facilitated sessions were used to corroborate the information derived from the KAP.

Purpose of KAP Report

The purpose of this report is to document and analyse the information received through the KAP questionnaire that was distributed and completed by participants before the actual start of the workshop. This was a good strategy to ensure completion before the start of the workshop as participants knowledge and attitude were not influenced by the new knowledge they were about to receive.

The questionnaire included 29 questions which were designed in the form of a KAP (knowledge, attitudes and practices) questionnaire towards documenting information on knowledge, attitudes and practices of the regional media with respect to wastewater management and environmental issues in general.

This report analyzes each question and based on the analysis presents conclusion related to the knowledge, attitudes and practices of the regional media with respect to wastewater and environmental issues in general.

The two facilitated sessions which were included in the Workshop programme were designed to obtain feedback from the media with the aim of improving the Project's (CReW's) effectiveness in providing them with useful resources and assistance so that they are able to cover the issue of wastewater better in the future. Notwithstanding, some of the questions posed to the participants in these two facilitated sessions (the one using the single card method and the other the world café) were useful in corroborating some of the information contained

in the KAP. Where the responses from the facilitated sessions were used, these are highlighted in the document.

Objectives of KAP Study on Wastewater Management in the Wider Caribbean Region

KAP studies can be approached using both qualitative and quantitative methods (WHO, 2008). Although quantitative methods are often used in KAP studies because of their generalizability, qualitative approaches are also very common. Qualitative research is explorative in nature, and although not generalizable, gains in-depth knowledge of the perceptions, stories, opinions and beliefs of the participants in the study. This KAP employs both a quantitative and qualitative approach and was achieved through the use of a questionnaire that contained both closed-ended and open-ended questions.

This KAP study explored the knowledge, attitudes and practices of the media in the region to wastewater management. This was undertaken to try to better understand how the media in the region values, perceives, and behaves in relation to wastewater and the natural environment in general.

This KAP study was designed to address the following key objectives:

- 1. To understand knowledge and attitudes of the regional media with respect to wastewater management
- To document actions and/or approaches taken by the media(including organizations) to inform the general public on environmental issues in general and more specifically on wastewater issues
- 3. To investigate potential behaviour change mechanisms and/or communication strategies that could be employed to reduce negative impacts on the environment

General Profile of Participants in KAP

Twenty-eight persons participated in the KAP. Seventeen (61%) of participants work with a media organization; 6 work as a freelancer, 2 are in public relations, 2 work with government entities and there was one participant not affiliated with the media. Of the participants who work with a media organization, 24% of them work in print, electronic and broadcast media; another 24% of this group work in print media only and 29% work in broadcast media only. Of the freelancers, 50% are in broadcasting while the others are spread across electronic and print media. Only one freelancer works in print, electronic and broadcast media. With respect to the two participants who work with government entities, one works in print and the other in broadcasting.

Within the media group, 41% are journalists and 18% undertake all three roles – feature writer, journalist and news reporter. Within the freelancer group, 83% are freelance writers.

Overall Level of Knowledge of Wastewater Management among Regional Media (Knowledge)

Question 1:

What do you think about when you hear the term wastewater? Give one word.

Wastewater can be defined as:

A combination of one or more of: domestic effluent consisting of blackwater (excreta, urine and faecal sludge) and grey water (kitchen and bathing wastewater); water from commercial establishments and institutions, including hospitals; industrial effluent, storm water and other urban run-off; agricultural, horticultural and aquaculture effluent. It is any water that has been adversely affected in quality by human activities and can contain dissolved and/or suspended pollutants. It may contain pollutants such as nutrients, pathogens and viruses.

Table 1: Words used to describe wastewater by the participants are presented in the table below:

Media	Freelancers	Public	Government	No Org
Organizations		Relations		
Pollution	Waste/excrement	Dirty	Water resources	Negative Impact
Filth	Water unsafe for	Recycling	with depleted	
Crap water	consumption		quality	
Problems	Pollution		Dirty	
Sludge	Danger			
Dirty x 5	No response			
Sewage x 2	Sewage			
Smelly				
Important				
Mess				
Boring				
Disgusting				

Of the 28 participants, 61% of them used a word contained in the definition above for wastewater and therefore this can indicate that these participants have some level of knowledge of what wastewater is.

Question 2:

Which of the following defines 'sewage" best?

Sewage can be defined as:

Liquid and solid waste carried off in sewers or drains

In terms of participants' knowledge of sewage, more than half of the respondents (57%) inaccurately defined the term. Within the media organizations, 35% of these participants defined sewage correctly, with 65% of participants in this group inaccurately defined the term. Within the freelancer group, 67% of the participants defined the term sewage correctly.

Question 3:

What would you say best describes your knowledge of general environmental issues?

Participants' were asked to describe their perception of their knowledge of environmental issues. The table below shows the participants own perception of their knowledge of environmental issues. This perception is mapped against their knowledge of what sewage is. Responses ranged from no knowledge to good knowledge. To obtain a sense of whether participants' perception of their own knowledge of environmental issues really reflected their true knowledge, their own perception was mapped to their response of question 2 which is a basic environmental term. The term being sewage.

Table 2: Participants Perception of their Knowledge Mapped against their Understanding of Sewage

														PEI	RCE	PTI	ON																	
	Me	dia	Org	ani	zati	ion	ıs		Fi	reel	and	er	s		F	Public Relations					Government								No	0	rg			
	Α	В	С	D		Υ	Ν	Α	В	С	D		Υ	N	Α	В	С	D		ΥΙ	N A	В	С	D		Υ	N	Α	В	С	D		Υ	N
1																																		
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5																																		
6																																		
7																																		
8																																		
9																																		
10																																		

	PERCEPTION																																	
	Me	dia	Org	gani	zat	ioi	ns		Freelancers Public Relations (Government					No Org																
	Α	В	С	D		Υ	Ν	Α	В	С	D		Υ	N	Α	В	С	D	Υ	N	Α	В	С	D		Υ	N	Α	В	С	D		Υ	N
11																																		
12																																		
13																																		
14																																		
15																																		
16																																		
17																																		

Key:

- A no knowledge
- B low knowledge
- C fair knowledge
- D good knowledge
- Y answer to question correct "Which of the following defines sewage best?"
- N answer to question incorrect "Which of the following defines sewage best?"

61% of participants perceive their knowledge of environmental issues to be fair. Of this 61% of participants, only 53% of them accurately responded to the question on sewage.

It is interesting to note that of the 11 participants from media organizations who indicated that they had fair knowledge of the environment; only 6 of them or 55% answered the question related to sewage correctly. Of the three participants in the media group who indicated that they had good knowledge of the environment, all three answered the question related to sewage incorrectly.

Question 4:

What would you say best describes your knowledge of wastewater issues in your country?

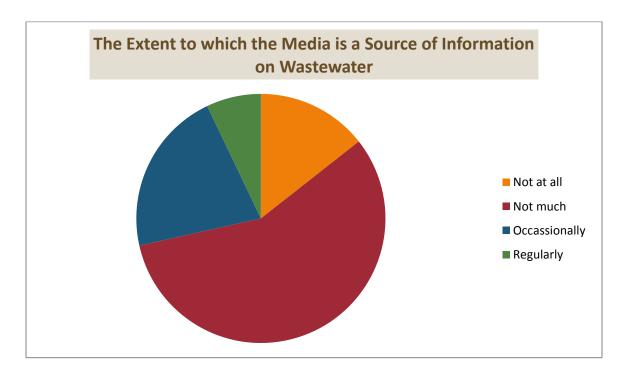
Participants were asked to indicate their knowledge of wastewater issues in their country. 61% of participants described their knowledge of wastewater issues in their country as fair. Only 2 participants (7%) described their knowledge of wastewater issues in their country as good. Of the participants within the media organizations 41% of them indicated that they had fair knowledge of wastewater issues affecting their country whilst another 41% indicated that they had no knowledge. Within this group, there were no participants who indicated that they had good knowledge of wastewater issues in their country. 67% of the participants of the freelancer group indicated that they had fair knowledge of wastewater issues in their country. Within the

government agency group, both participants indicated that they had fair knowledge of wastewater issues in their country.

Question 5:

To what extent do you think the media is currently a source of information about wastewater issues?

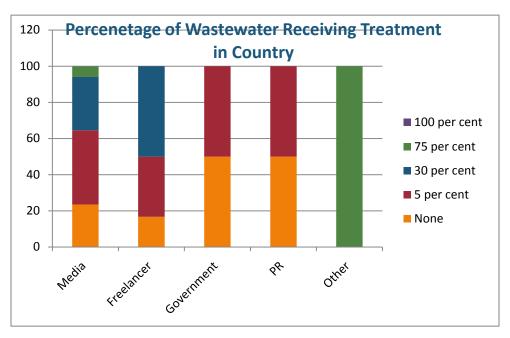
57.1% of participants indicated that the media is not really a source of information about wastewater issues, having chosen answer "b", "not much". Another 21% indicated that the media was occasionally a source of information on wastewater issues while only 7% indicated that the media was a regular source of information about wastewater issues. Within the media group most participants or 53% of them indicated that the media was not really a source of information about wastewater issues. This is similar to the freelancer group where 67% indicated that the media was not really a source of information about wastewater issues.



Question 6:

What percentage of wastewater do you think receives any level of treatment in your country?

40% of the participants suggested that they believed that only 5% of wastewater received treatment in their country. Another 29% suggested that 30% of the wastewater in their country received treatment. It is interesting to note that 25% of the respondents suggested that there was no wastewater



treatment in their country. The chart shows how the participants from the different groups (media, freelancers etc.) viewed the percentage of treatment of wastewater in their country. For example, 23.5% of those in the media group thought that wastewater received no treatment in their country while 50% of those working with government felt that there was no treatment of wastewater in their country.

Question 7:

Do you know what organization is responsible for wastewater management in your country? If yes, please name it.

The table below shows the name of the organizations that participants indicated was responsible for wastewater in their country. The name of the organization was then matched to the country that the organization is located where this was possible. Only 18% of the participants were unaware of the name of the organization that was responsible for the treatment of wastewater in their country.

Table 3: Organizations in the Region Responsible for Wastewater Management as Indicated by Participants

Grouping	Name of Organization Responsible for Wastewater	Country	No of Participants from Country
Media	Suriname Water Company	Suriname	2
	National Water Commission National Environment and Planning Agency	Jamaica	2
	Central Water and Sewage Authority	St. Vincent and the Grenadines	2
	Environment Division Central Board of Health	Antigua and Barbuda	1
	Wastewater Management Agency		1
	The Guyana Water Incorporated Ministry of Water and Housing		1
	Water and Sewage Authority	Trinidad and Tobago	1
	Barbados Water Authority	Barbados	2
	Sanitation SIMA Authority		1
•	affiliated with media organizations wer organization responsible for wastewater		ame of the
Freelancers	Municipal Authorities	in their country.	2
	The Guyana Water Incorporated Ministry of Water and Housing	Guyana	_
	Barbados Water Authority	Barbados	3
Public Relations	Guyana Water Incorporated	Guyana	
1 participant in the	PR grouping was unaware of the name wastewater in their count		responsible for
Government	Guyana Water Incorporated	Guyana	1
	Water and Sewage Company	Saint Lucia	1
Other	WASA	Trinidad	1

Question 8:

Which of the following are under threat form untreated wastewater

Participants were asked to list the threats from untreated wastewater based on a set of responses presented to them. Releasing untreated wastewater into the environment can have negative impacts on the natural environment and our health such as contamination of drinking water, harm to fish and wildlife populations, restrictions on fish and shellfish harvesting, beach

closures and other restrictions on recreational water use. Based on the foregoing, all the answers listed in the question would be threatened by untreated wastewater.



Figure 1: Responses to question: "Which of the following are under threat from untreated wastewater?

Most respondents listed more than one threat from untreated wastewater. 36% of respondents listed all 5 responses as being under threat from untreated wastewater. 78.5% of participants listed public health as one of (and in some cases the only response) of the areas threatened by untreated wastewater. Likewise, 82.7% of respondents listed coral reefs and marine life as one of (and in some cases the only response) of the areas threatened by untreated wastewater. The response that was least included by respondents was fisheries – in other words it appeared that there was a lack of knowledge of the fact that fisheries is impacted by wastewater.

83.3% of the persons in the freelancer group stated that all five responses were under threat from untreated water, while only 23.5% of those in the media group stated that all five responses were under threat.

Question 9:

What do you think are the 3 biggest issues relating to wastewater?

Participants were asked to rank the three biggest issues related to wastewater. To determine the ranking, the choices were summed across issues. The ranking of the issues (1 to 5, with 1 being the highest ranked issue) related to wastewater by respondents are:

Table 4: Ranking of Issues Related to Wastewater by Participants

Ranking	Issue	Number of Votes for Issue	Percentage of Participants ranking this particular issue
1	Public health	28	100
2	Tourism	17	60.7
3	Pollution of the Seas	15	53.6

Ranking	Issue	Number of Votes for Issue	Percentage of Participants ranking this particular issue
4	Diseases and Epidemics	15	53.6
5	Pollution of rivers	9	32.1

All participants indicated that public health was an issue relating to wastewater and this was ranked as the highest issue. Both pollution of the seas and diseases and epidemics were equally ranked as an issue by participants. The issue that was least ranked by the participants was pollution of rivers.

Question 10:

Circle whichever issues you think are impacting wastewater management

Participants were asked to indicate the issues that they felt were impacting wastewater management. They were presented with 8 issues. Respondents indicated that the following issues were impacting wastewater management. The issues are ranked based on the number of persons who selected the issue. Most participants selected more than one issue in almost all cases. These issues are ranked in the table below according to the number of times they were selected by participants.

Public ignorance of wastewater was voted as the top issue impacting wastewater and this was followed equally by lack of funding for wastewater management and the low priority of this issue by governments. The issues that participants felt least impacted wastewater management were poor utility management and extreme weather events.

Table 5: Ranking of Issues Impacted by Wastewater Management as indicated by Participants

Ranking	Issue	Number of Votes for
		Issue
1	Public ignorance	25
2	Lack of funding	20
3	Low priority for government	20
4	Lack of regulation	18
5	Unregulated housing	11
6	Lack of technical skills	11
7	Poor utility management	9
8	Extreme weather events	4

Conclusion – Knowledge

Of the 28 participants under consideration, more than 50% of them can be classified as having low levels of knowledge on issues related to wastewater and the environment in general. This is based on:

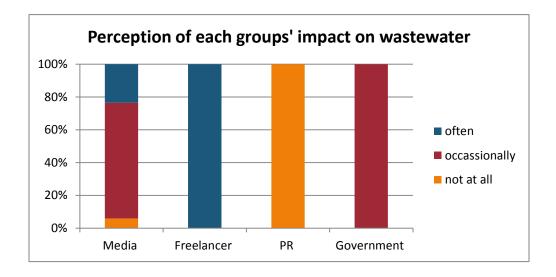
- Participants' own perception of their knowledge of environmental issues as much as 61% of respondents indicated that they only had fair knowledge of environmental issues and 61% of participants describing their knowledge of environmental issues in their own country as fair.
- The fact that more than 60% of participants could not define a simple environmental word sewage
- More than 50% of participants indicating that the media is not really a source of knowledge about wastewater issues in their country
- The fact that only 36% of respondents could identify all the threats to untreated wastewater presented to them

Approach to Environmental and Wastewater Issues and Coverage (Attitudes)

Question 1:

Do you think your activities have an impact on wastewater?

Participants were asked to indicate whether they felt that their own activities had an impact on wastewater. Choices were: not at all; occasionally; and, often. 50% of all participants said that their activities had an impact on wastewater, while 39.3% of participants indicated that their activities often had an impact on wastewater. The chart below shows for each of the representative groups how they felt about their own personal impacts on wastewater. For example, 70.5% of persons in the media group indicated that they occasionally had an impact on wastewater while those in the public relations groups indicated that do not impact wastewater at all.



Question 2:

Which do you consider that untreated wastewater released into the environment (ground/drains/waterways/rivers/coastal waters) is:

Participants were asked to rate the threat that untreated wastewater posed to the natural environment. Responses ranged from no threat to high threat. 71% of all respondents rated the threat of untreated wastewater to the environment as high.

Question 3:

Have you ever written about environmental issues, water and/or wastewater issues in the past?

Participants were asked to indicate the extent which they have written about environmental issues in the past. Responses ranged from never to frequently. 57% of participants indicated that they occasionally write about environmental/wastewater management issues while 28.5% indicated that they frequently write about environmental/wastewater management issues. Of the freelancers, 83% indicated that they frequently write about environmental/wastewater management issues. Within the media group, only one participant indicated that they never write about environmental/wastewater management issues and this was the same for the freelancer group.

Information emerging from the Single-Card Facilitated Session

From the facilitated Single-Card session participants identified a number of issues that they face in writing about wastewater issues. These are:

- Environmental issues are not a priority for media outlets environmental issues do not sell newspapers, environmental issues such as wastewater must compete for space in media space that is dominated by dramatic/high impact stories such as drug-trafficking and crime, lack of resources and time to do investigative stories
- Difficulty in finding exciting/dramatic human interest stories related to wastewater management
- Lack of information statistics, data, limited up to date information, lack of information on the importance of wastewater and the impact on lives
- Soliciting interviews, updated information about progress and problems are experienced
- Lack of public knowledge

Question 4:

Do you cover environmental issues with the aim of:

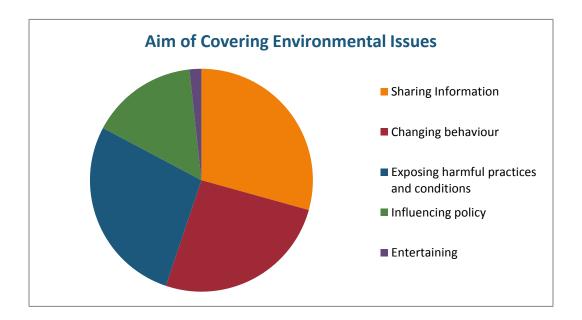
Participants were asked to indicate their aim in covering environmental issues. Possible responses that participants could have chosen are listed in the box to the right. Participants in some cases did indicate more than one answer which was recorded. The aim of covering environmental issues are ranked below (1 to 5, with 1 being the most popular response of participants) based on popularity of response:

Aim of Covering Environmental Issues – Possible Responses

- Sharing Information
- Changing Behaviour
- Exposing Harmful Practices and Conditions
- Influencing Policy
- Entertaining

- 1. Sharing information
- 2. Exposing harmful practices and conditions
- 3. Changing behaviour
- 4. Influencing policy
- 5. Entertaining

In the media group, participants ranked sharing information as the most important aim of covering environmental issues while in the freelance group the most important aim appeared to be influencing policy. Exposing harmful practices and conditions was ranked second amongst the media participants.



Question 5:

How did your editor react to your participation in this workshop?

Participants were asked to state how their editor reacted to participation in the workshop. Responses ranged from very interested and supportive to unsupportive. No participant indicated that there editor was unsupportive of their attendance in the workshop. 61% of participants who responded indicated that their editor was very interested and supportive of their attendance in the workshop while 39% indicated that their editors were indifferent. Within the media group 53.3% of respondents indicated that their editors were very interested and supportive while 47% indicated that their editors were indifferent. The non-response rate for this question was 18% or 5 participants.

Question 6:

Do you have any particular interest regarding wastewater or other environmental stories? If so state:

Participants were asked to state any areas of interest they had regarding environmental or wastewater stories. If participants gave a responses this was coded as a "Yes", it they indicated No, this was coded as "No" and if there was no response this was coded as "Not Stated". 93% of participants expressed interest regarding wastewater or other environmental issues. Many participants indicated more than one area of interest.

Areas of interest regarding wastewater as indicated by participants are presented by group in Table 6.

Table 6: Areas of Interest regarding wastewater as indicated by participants

Freelance	Media	PR	Government
 Wastewater treatment Climate change Agriculture Public health Epidemic disease control Marine Legislation Making government agencies act less indifferent Stakeholder engagement Public education and awareness The effects of metal mining on wastewater Reusing wastewater 	 Understand how Guyana will benefit from the requisite reforms in the areas of wastewater management and the likely impacts of non-reforms and slow progress in the area Water issues – and the effect of public health and ecosystems Effects of wastewater on agriculture and marine life Insufficient waste treatment facilities Protection of the environment Coastal zone Wastewater and energy Public perceptions relating to wastewater Celebrating the environmental heritage of Barbados Wastewater and the impact on tourism Risks of wastewater Wastewater as a resource Wastewater and climate change Wastewater management in Suriname How to create awareness around environmental issues Climate change Impact of climate change in 	• Pollution	 The use of treated wastewater as a resource Wastewater treatment Impact of untreated wastewater on human health and the environment Solid waste management

Freelance	Media	PR	Government
	Suriname		

Areas that interest that emerged more than once included:

- Wastewater treatment
- Wastewater and public health
- Linkages between wastewater and other issues

Question 7:

Do you think you have an important role to play in shaping and/or changing people's perceptions of wastewater?

Participants were asked to express how they felt about their role in shaping and/or changing peoples' perception of wastewater. Almost all participants or 93% of them agree that they have a role to play in shaping and/or changing persons' perception of wastewater.

Information emerging from the World Café Facilitated Session

From the facilitated World Café session participants, identified a number of recommendations that would enable them to make wastewater "sexy" and assist them in the important role of shaping and/or changing people's perception of wastewater. Some suggestions of participants included:

- Using more creative headlines ...and being more creative
- Using images
- Using attractive / real visuals to promote the message
- Use mobile apps
- Make linkages between marine life and human recreation
- Using celebrities to spread the word
- Stop calling it "waste"
- Make it relate to people's lives
- Giving human names to animals and using stories of individual animals to tell the story of the species
- Economic benefits to be derived / job opportunities
- Tell the truth about waste the truth is sexy!
- Giving monetary rewards for using wastewater headline e.g. 'Make your shit count!"

Question 8:

What are your expectations of this workshop? State

Participants' expectations of the workshop are presented in Table below. Most participants expressed an interest to learn more about wastewater and wastewater management as well as the impacts of wastewater on various sectors. It is interesting to note that a few participants wanted to obtain information that would enable them to write wastewater stories that are "sexy" or effect demand by the public for these types of stories. Participants' expectations of the workshop are reflected in Table 7.

Table 7: Participants' Expectations of Workshop

Freelance	Media	PR	Government
 Enhance knowledge Better information gathering from colleagues Play a role in societal and behavioural change Effective journalism in this area To be able to provide scientific information about wastewater issues Solutions to wastewater being implemented in the Caribbean Creative ways in which the public can be informed about wastewater 	 Information and knowledge (general, local and regional) Networking Making environmental stories "sexy" The risks of wastewater Story angles How wastewater can be used in the agricultural sector and other domestic activities CReW project The role of the media in giving prominence to wastewater issues 	 Engaging the community Building capacity to feature wastewater in PR strategy 	Importance of wastewater Wastewater treatment and the impacts of wastewater on different sectors

Question 9:

In your country do you think that the issue of wastewater is seen as:

Participants were asked to express how they think the issue of wastewater is seen in their country. Responses range from immediate to not immediate. 53.6% of respondents indicated that the issue of wastewater is seen in their country as not immediate, while another 39.3% of participants indicated that the issue of wastewater in their country is seen as somewhat immediate. Only 7% of participants indicated that the issues were seen as immediate in their

country. With respect to the media group, about 59% of participants indicated that wastewater was seen as not immediate in their countries while 50% of the freelance group indicated same.

Question 10:

Do you think that providing more information on wastewater issues to the public will result in:

Participants were asked to assess what the result of providing wastewater issues to the public would be. Responses that participants could select were:

- A better understanding of the issues
- A feeling of greater helplessness regarding wastewater management
- Greater proactivity regarding wastewater issues

Some participants selected more than one response. A better understanding of the issues was elected by almost all the participants as to how the public would respond to more information on wastewater issues; this was followed by greater proactivity regarding wastewater issues. No participant selected "a feeling of greater helplessness regarding wastewater management".

Question 11:

Rank the following linkages according to which you think need to be most urgently explained to the public (1 being the highest)

Participants were asked to rank the following linkages (in text box to the right) in order of priority in terms of the issues that they think most urgently need to be explained to the public. The ranking of each of the groups is presented in the table below. Participants' ranking was varied. However, based on Table 8 below the following shows how each question was ranked individually. These

Key Linkages with Wastewater that Participants were asked to rank:

- a) Wastewater and health
- b) Wastewater and tourism
- c) Wastewater and climate change
- d) Wastewater as a resource
- e) Wastewater and livelihoods
- f) Wastewater and the environment

individual ranks were then tabulated to come up with an overall ranking of each linkage and this ranking was based on how participants ranked each linkage and the number of participants ranking each linkage. This is presented in Table 9.

Table 8: Participants Individual Ranking of Wastewater Linkages that Need to be explained to the Public

Linkages	Α	В	С	D	E	F
Rank						
Freelance	1	2	5	3	4	6
	4	6	5	3	2	1
	3	5	6	4	2	1
	1	3	4	6	5	2
	1	5	6	3	4	2
	1	6	4	5	3	2
Media	2	1	3	5	4	6
	1	4	2	3	5	6
	2	4	5	6	1	3
	3	6	1	5	4	2
	1	3	5	4	2	6
	1	6	4	5	3	2
	4	1	2	3	6	5
	1	6	4	3	5	2
	1	6	2	4	3	3
	3	2	6	1	4	5
	2	4	5	3	6	1
	3	2	6	5	1	4
	1	2	2	1	1	1
	1	4	6	3	5	2
	3	2	5	6	4	1
	1	6	2	3	4	5
	1	1	2	2	4	1
PR	1	2	6	4	3	5
	1	4	5	3	2	6
Government	1	6	5	4	3	2
	1	6	4	2	3	5
Other			1	2		3

Key:

a) Wastewater and health d) Wastewater as a resource

b) Wastewater and tourism e) Wastewater and livelihoods

c) Wastewater and climate change f) Wastewater and the environment

Table 9: Ranking of Each Linkage by Participants

Linkage	Rank	No of Participants Ranking Each
		Issue
A – Wastewater and Health	1	17

	2	2
	5	3
	2	4
B – Wastewater and Tourism	1	3
	2	6
	3	2
	4	5
	5	2
	6	9
C – Wastewater and Climate	1	2
Change	2	6
	3	1
	4	5
	5	8
	6	6
D – Wastewater as a Resource	1	2
	2	3
	3	3 10
		10 5
	3 4 5	10 5 5
	3	10 5
E – Wastewater and	3 4 5 6 1	10 5 5
E – Wastewater and Livelihoods	3 4 5 6 1 2	10 5 5 3
	3 4 5 6 1	10 5 5 3 3 4 6
	3 4 5 6 1 2 3	10 5 5 3 3 4
	3 4 5 6 1 2 3 4	10 5 5 3 3 4 6 8 4
Livelihoods	3 4 5 6 1 2 3 4 5 6	10 5 5 3 3 4 6 8 4
Livelihoods F – Wastewater and the	3 4 5 6 1 2 3 4 5 6	10 5 5 3 3 4 6 8 4 2 6
Livelihoods	3 4 5 6 1 2 3 4 5 6 1	10 5 5 3 3 4 6 8 4 2 6 8
Livelihoods F – Wastewater and the	3 4 5 6 1 2 3 4 5 6 1 2 3	10 5 5 3 3 4 6 8 4 2 6 8 3
Livelihoods F – Wastewater and the	3 4 5 6 1 2 3 4 5 6 1 2 3 4	10 5 5 3 3 4 6 8 4 2 6 8 3 1
Livelihoods F – Wastewater and the	3 4 5 6 1 2 3 4 5 6 1 2 3	10 5 5 3 3 4 6 8 4 2 6 8 3

Based on Tables 8 & 9 the following has emerged as a result of participants own ranking as the top priority linkages (1 being the highest) that the public needs to urgently understand. The top priorities are:

- 1. **Wastewater and health** 17 participants ranked this as the number one issue which was the highest number ranking it as # 1
- 2. **Wastewater and the environment** 8 participants ranked this as the #2 issue which was the highest number of participants ranking it as # 2

- 3. Wastewater as a resource
- 4. Wastewater and livelihoods
- 5. Wastewater and climate change
- 6. Wastewater and tourism

Question 12:

What do you think are the greatest barriers to effective media coverage on environmental issues (rank in order of importance, 1 being the highest)

Participants were asked to rank in order of importance the barriers to effective media coverage on environmental issues. Six barriers were presented as follows:

- Lack of information
- Lack of interest and support by media houses and editors
- Lack of clear messages
- Lack of understanding of the journalist's role
- General indifference to environmental issues
- Lack of information that is easily understood by the public

Participants' individual ranking of each of the barriers is presented in Table 9. These individual ranks were then tabulated to come up with an overall ranking of the barriers and this is presented in Table 10.

Table 10: Participants Individual Ranking of the Barriers to Effective Coverage on Environmental Issues

Barriers	Α	В	С	D	E	F
Rank						
Freelance	6	1	5	4	2	3
	1	2	5	6	3	4
	4	2	5	6	3	1
	1	5	4	6	3	2
	3	2	5	4	1	6
	2	1	4	3	5	6
Media	5	6	1	3	2	4
	3	2	5	1	3	6
	4	5	3	6	1	2
	6	2	4	5	3	1
	5	2	4	6	1	3
	1	4	3	6	5	2
_	5	3	2	4	6	1

Barriers	Α	В	С	D	E	F
Rank						
	2	6	3	5	4	1
	4	1	5	2	3	6
	6	3	5	2	1	4
	3	4	2	6	5	1
	3	4	2	6	5	1
	1	3	3	3	1	2
	1	3	5	6	4	2
	2	6	3	5	4	1
	1	2	2	1	1	3
	5	3	4	6	2	1
PR	4	5	3	2	6	1
Government	2	3	6	5	4	1
	6	3	4	2	1	5
Other						

Key:

- a) Lack of information
- b) Lack of interest and support by media houses and editors
- c) Lack of clear messages
- d) Lack of understanding of the journalist's role

- e) General indifference to environmental issues
- f) Lack of information that is easily understood by the public

Based on Table 10 the following has emerged as a result of participants own ranking as the barriers (ranked in order of importance, with 1 being the highest) to effective media coverage on environmental issues. The barriers are ranked as follows: (1 being the greatest barrier):

- 1. Lack of information that is easily understood by the public
- 2. Lack of information
- 3. Lack of interest and support by media houses and editors
- 4. General indifference to environmental issues
- 5. Lack of clear messages
- 6. Lack of understanding of the journalist's role

Information emerging from the World Café Facilitated Session

From the facilitated World Café session participants, identified some approaches that they could take that would assist them in changing their attitudes towards wastewater and they also presented some recommendations that could help to facilitate this change. These are presented below.

Approaches to Changing Attitudes

Recommendations that could Facilitate Attitude Change

- Making it personal
- Empowering journalists to understand their role
- Re-examining individual cultural attitudes
- Showing media owners that there is an audience for environmental stories
- Tours and site visits to see wastewater impacts and treatment in action
- Training and education
- Including environmental segments in newscasts/newspapers
- Packaging useable resources that are media friendly and medium-specific
- Consistent updates from wastewater organizations

Table 11: Ranking of Each barrier to Effective Media Coverage by Participants

Linkage	Rank	No of Participants Ranking Each Issue
A – Lack of Information	1	6
	2	4
	3	4
	4	4
	5	4
	6	4
B – Lack of Interest and	1	3
Support by Media Houses and	2	7
Editors	3	7
	4	3
	5	3
	6	3
C – Lack of Clear Messages	1	1
	2	4
	3	6
	4	6
	5	8
	6	1
D – Lack of Understanding of	1	2
the Journalist's Role	2	4
	3	3
	4	3

Linkage	Rank	No of Participants Ranking Each Issue
	5	4
	6	10
E – General Indifference to	1	7
Environmental issues	2	3
	3	6
	4	4
	5	4
	6	2
F – Lack of Information that is	1	10
Easily Understood by the	2	5
Public	3	3
	4	3
	5	1
	6	4

Question 13:

Would you have any issues being identified as a 'wastewater journalist'?

Participants were asked if they had any issues with being identified as a wastewater journalist. Responses were either yes or no. 68% of participants indicated that they would have no issue with being identified as a wastewater journalist. 18% of participants did not respond to the question whilst 14% of participants indicated that they would have an issue with being identified as a wastewater journalist. The participants who indicated that they would have an issue were from the media organizations.

Conclusion – Attitudes of Regional Media

Generally, participants expressed a good and positive attitude towards wanting to learn more and understand better environmental and wastewater issues. This positive attitude is emphasized by:

- 89% of participants indicated that their activities either had an impact on wastewater or
 often had an impact on wastewater recognition of how you impact an environmental
 issue is a good start of changing practices and indicated a range of interest topics that
 they had in mind.
- 93% of participants felt that they had a role in shaping and/or changing people's perception of wastewater.
- 93% of participants indicated that they had an interest in writing about environmental and wastewater management issues

- Participants' expectation of the workshop was another indicator of their attitude towards the topic in questions – almost all participants indicated interest in obtaining more information on wastewater to be able to write articles and stories.
- More than 60% of editors showed interest and support for this workshop
- 71% of participants indicating that wastewater is a high threat to the environment
- Lack of information that is easily understood by the public and a general lack of information was seen as the two main barriers to effective media coverage of environmental issues
- Over 60% of participants indicated that they would not have a problem being identified as a wastewater journalist.

Approach to Work/Coverage (Practices)

Question 1:

Ranking the Key Attributes of News Stories

Participants were asked to rank hat they look for most in a news story. The following choices were presented to participants:

- a) Human interest
- b) Public good
- c) Educational value
- d) Sensationalism
- e) Revelation

Participants individual ranking are presented in Table 12:

Table 12: Individual Ranking of what Participants look for in a News Story

News Story	Α	В	С	D	E
Rank					
Freelance	3	1	2	5	4
	2	3	4	5	1
	1	4	3	5	2
	3	1	2	5	4
	2	3	4	5	1
	3	2	1	5	4
Media	3	2	1	5	4
	1	1	2	3	1

News Story	Α	В	С	D	E
Rank					
	3	2	1	5	4
	4	2	1	5	3
	1	2	4	5	3
	2	3	4	5	1
	3	1	2	5	4
	1	3	2	4	5
	4	2	3	5	1
	1	2	3	5	4
	1	3	2	5	4
	1	3	2	5	4
	1	1	1	3	2
	1	2	3	5	4
	2	1	3	5	4
	2	1	1	5	5
	1	3	2	5	4
PR	2	5	1	3	4
Government	3	4	2	5	1
	1	2	3	5	4
Other	1	2			3

Based on Table 12 the following has emerged as a result of participants own ranking to what they look for in a news story (ranked in order of importance, with 1 being the highest). The ranking is a follows: (1 being the highest):

- 1. Human interest
- 2. Public good
- 3. Educational value
- 4. Revelation
- 5. Sensationalism

It is interesting to note that 88% of the participants voted sensationalism as 5th (or the least importance) of the all the attributes they look for most when writing a news story.

Question 2:

Percentage of Time Participants Choose their Subject of Coverage

Participants were asked to indicate what percentage of time they were able to choose their subject of coverage. Responses ranged from never to always. 36% of participants indicated that

they are able to choose their subject of coverage 75% of the time while 14% of participants indicated that this was possible 50% of the time and another 14% indicated that this was only possible 20% of the time. Within the media organizations, 41% of respondents are able to select their subject of coverage 75% of the time while 29% of them are always able to choose their subject of coverage.

Question 3:

What percentage of your coverage is dedicated to environmental issues?

Participants were asked to indicate the percentage of their coverage dedicated to environmental issues. Responses ranged from less that 20% to 100%. 35% of respondents indicated that they covered environmental issues less than 20 percent of their overall coverage; another 23% indicated that environmental issues was covered 20% of their overall coverage. More than half of the respondents (58% of them) covered environmental issues between less than 20% and up to 20% of their overall coverage. 11% of participants indicated that they dedicated 75% of their stories to environmental issues whilst another 11% indicated that for them they covered environmental issues 100% of their overall coverage. Within the media group, 53% of respondents indicated that their coverage of environmental issues was less than 20 per cent whilst 12% of that group indicated that their coverage of environmental issues was 100% of their coverage. Within the government group, 50% of the respondents indicated that environmental issues made up 75% of their coverage whilst the other 50% indicated that it made up 100% of their coverage.

Question 4:

Where do source most of your information?

Participants were asked to indicate where they source information for their stories. Responses were:

- Interviews
- Scientific reports
- Institutional and project reports
- Newsletter and other specially produced information materials
- The internet/other media coverage

Most participants indicated more than one response to the question. The ranking of where participants obtained information for their stories are presented in Table 13 below. Most participants indicated that interviews were their main source of information in their coverage

and this was followed by the internet. The least popular source of information was newsletters and other specifically produced information materials.

Table 13: Ranking of where Participants Obtain Information for their Stories

Ranking	Source of Information	Number of Votes for
		Issue
1	Interviews	24
2	The internet/other media	13
	coverage	
3	Scientific reports	10
4	Institutional and project	8
	reports	
5	Newsletters and other	5
	specifically produced	
	information materials	

Information emerging from the World Café Facilitated Session

From the facilitated World Café session participants identified ways in which the GEF CReW project and UNEP CEP can help the media cover wastewater and related issues better. These included:

- Issuing press releases in simplified language
- Providing incentives for outstanding coverage (e.g. awards)
- Facilitating site visits/exchanges
- Hosting more workshops
- Sending constant alerts / networking on environmental issues (e-alerts / e-blasts)
- Creating a direct line source of information sharing
- Creating a GEF CReW app for android / smart phone
- Providing media with country-specific statistics and country explanations
- Producing a booklet / handbook for journalists on wastewater
- Facilitating networking amongst journalists
- Updating media resources (website, Facebook page etc.)
- Publishing a compilation of wastewater features from the region
- Involving journalists in environmental discussions / events
- Identifying wastewater champions who "work"
- Facilitating regional coverage / travel/ guidance / funding / fellowships for journalists

Question 5:

How often do you follow-up or return to cover an issue after your initial coverage?

Participants were asked to indicate how often they follow-up on or return to cover an issue after their initial coverage. Responses ranged from never to all the time. 54% of respondents indicated that they follow-up on an initial story 50% of the time while another 29% indicated that they follow-up on a story 20% of the time. Only 8% of participants indicated that they never follow-up on a story after the initial coverage. Within the media group, 52% of respondents indicated that they return to cover an initial issue 50 per cent of the time while another 35% in this group indicated that they do so only 20% of the time. Within the freelancer group, 75% of respondents indicated that they did follow-up on an issue previously covered.

Question 6:

What kinds of information do you think would help you support or write better about wastewater issues? (Rank with 1 being the highest).

Participants were asked to rank the kinds of information (presented below) they would like to help them write better about wastewater issues.

- a) Statistics
- b) Case studies
- c) Project updates
- d) Interviews
- e) Site visits

Individual participant ranking of the kinds of information they would like to have are presented in Table 14 below.

Table 14: Participant individual ranking of the types of information that they feel will help them write better about wastewater issues

Information	Α	В	С	D	E
Rank					
Freelance	4	1	5	2	3
	4	3	5	2	1
	2	3	5	4	1
	5	2	4	1	3
	5	4	2	1	3
	5	4	2	1	3

Information	Α	В	С	D	E
Rank					
Media	4	2	1	3	5
	1	1	1	1	2
	4	3	5	1	2
	4	5	3	2	1
	1	3	5	4	2
	5	3	4	2	1
	3	4	1	5	2
	5	4	1	2	3
	3	4	5	2	1
	5	1	3	4	2
	5	4	1	2	3
	5	4	3	2	1
	1	1	1	1	1
	3	5	4	2	1
	3	4	2	1	5
	1	2	1	1	1
	3	5	4	2	1
PR	5	4	1	2	3
Government	5	1	3	4	2
	1	5	4	3	2
Other		1	2	-11	3

Key:

a) Statistics

b) Case studies

c) Project updates

d) Interviews

e) Site visits

Participant ranking of the information (1 being the highest rank) that they think would help them write better about wastewater issues are:

- 1. Site visits
- 2. Interviews
- 3. Project updates
- 4. Case studies
- 5. Statistics

Conclusion – Practices of Regional Media

Whilst participants displayed a strong interest in environmental and wastewater management issues, their practices in covering these stories were limited in many instances by their lack of understanding of environmental and wastewater issues as well as a lack of information. Thus

while 50% of participants are able to choose their topics of coverage between 50 - 75% of the time, 22% of all participants cover environmental issues 75 to 100% of the time. Further, participants indicated that site visits, access to interviews and project updates will help them better write about wastewater issues.

Towards the Development of a Public Awareness Strategy for the Media...Recommendations Emerging from the KAP

The KAP study provided valuable information on the knowledge, attitudes and practices of regional media with respect to wastewater and environmental issues. By knowing the level of knowledge, attitudes and practices of participants, carefully designed public awareness, training and capacity building programmes can now be designed towards achieving better outcomes in how information on wastewater and environmental issues are disseminated to the general public and also how effect demand for environmental knowledge and information.

To bring about social and behavioural change with respect to wastewater management, communications and public awareness interventions need to be evidence-based. Evidence-based programming underlines the importance of collecting baseline and follow-up data to design and evaluate activities and programmes aimed at populations or specific subgroups. The Knowledge, Attitudes and Practice (KAP) study geared to the regional media explored their knowledge, attitudes and practices with respect to wastewater and environmental issues.

The KAP study produced data that were informative, insightful and broadly useful. This data would facilitate the design of a public awareness strategy geared specifically for regional media. The KAP study helped to define the practices and attitudes that need to be changed or adopted. The results of the KAP study will play a critical role in identifying the communication needs of the media in the region and provide the basis for the formulation and implementation of a Public Awareness Strategy.

The KAP study will enable the development and elaboration of specific tools and messages for regional media as well as the development of information for the timely and expeditious delivery of communication materials and the establishment of strategic partnerships.

A preliminary list of key mechanisms that could be employed and elaborated on to enhance the knowledge, attitudes and practices of the regional media include:

- Hosting additional media sensitization workshops
- Undertaking media briefings on a regular basis possibly through the use of online frameworks (e.g. Go-to-Meeting)

- Organize field trips to give first-hand information on the importance of conservation, wastewater management as well as best practices etc.
- Development of press kits to include a portfolio of fact sheets as well as general information on wastewater management and case studies. Press kits also should include information related to the activities being undertaken under the Project as well as other wastewater/environmental activities
- Creating an annual awards competition that recognizes journalistic efforts for the best reports, features and photographs related to wastewater management and environmental conservation. Consideration will be given to expanding existing environmental journalism awards to focus on wastewater management.
- Development of radio discussions, and radio spots conveying specific conservation messages to be used on popular radio talk shows
- Production of a special documentary film for screening on television, in schools, community centres, expos and other public gatherings, in offices etc.