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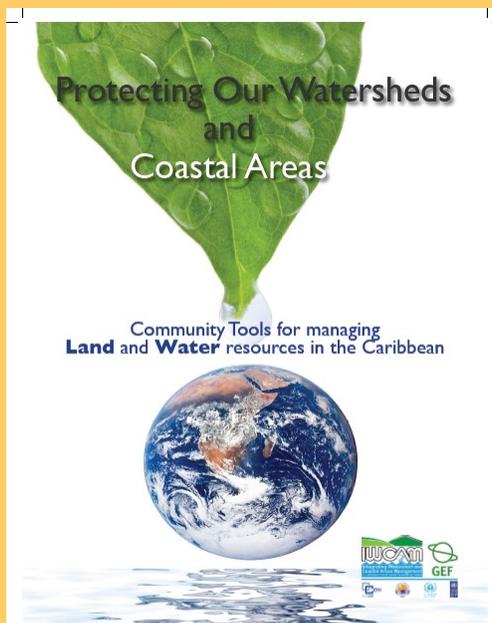
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Assessing the State of Our Watersheds

- GEF-IWCAM Trains the Trainers

Community involvement is essential to sustainable development. One of the ways to encourage this involvement is through empowerment. The GEF-IWCAM Project has encouraged empowerment through the development of its Community-Based Resource Assessment (CBRA) Tool (see December 2010 Newsletter, Volume 4, Issue 4).

Water is known to be abundant in nature but we cannot take it for granted that water will always be available to support our existence. We are challenged worldwide as we seek to meet growing demands for this scarce natural resource. This challenge is being faced daily by both developed and developing countries, including those in the Caribbean, as evidenced by the drought of late 2009 to early 2010 and the hurricanes of 2010.



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Saint Kitts' Basseterre Valley Aquifer Designated as a National Park!

On Friday, June 24, 2011, the Government of St. Kitts and Nevis and its partners celebrated the achievements of the GEF-IWCAM Demonstration Project as it officially closed. The Prime Minister of St. Kitts-Nevis, the Hon. Dr. Denzil Douglas, GEF-IWCAM Regional Project Coordinator, Vincent Sweeney and other senior members of government gathered at the ceremony to mark the official designation of a National Park as a means of protecting the precious resource of the Basseterre Valley Aquifer for generations to come.



View of the Basseterre Valley

Three years of hard work as part of the GEF-IWCAM Demonstration Project resulted in the sensitive well-field area being officially designated as the St. Kitts National Capitol Park under the National Conservation and Environmental Protection Act (1987). Notice of the designation of the National Park was published in the Official Gazette of the government of St. Kitts-Nevis on April 21, 2011.

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L. to r.: Halla Sahely, GEF-IWCAM Demo Project Manager; Hon. Denzil Douglas, Prime Minister of Saint Kitts & Nevis; Vincent Sweeney, Regional Project Coordinator, GEF-IWCAM; Cromwell Williams, Manager/Water Engineer, Water Services Department, after the Ceremony.

The vision for the National Park is to be an icon of national pride for all and an attraction for visitors to St. Kitts-Nevis. Towards that end, the management goals for the Park are to:

- Protect the water aquifer in the Basseterre Valley;
- Restore and maintain native flora species for education and recreation purposes;
- Provide open space in an increasingly urban setting;
- Provide active and passive outdoor recreation opportunities;
- Serve as a high-valued tourist attraction;
- Contribute to economic welfare and development;
- Serve as an outdoor classroom and laboratory.

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BACKGROUND ON THE GEF-IWCAM PROJECT:

The Global Environment Facility-funded Integrating Watershed and Coastal Areas Management in Caribbean Small Island Developing States (GEF-IWCAM) Project was approved by the Global Environment Facility (GEF) in May 2004. Implementing agencies are the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP). Executing agencies are the Secretariat of the Cartagena Convention (UNEP-CAR/RCU), the Caribbean Environmental Health Institute (CEHI) and the UN Office for Project Services (UNOPS). The thirteen participating SIDS are: Antigua and Barbuda, The Bahamas, Barbados, Cuba, Grenada, Dominica, Dominican Republic, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago. The Project commenced in the second quarter of 2005 and is due to end in December 2011. The Project Coordinating Unit is located at the CEHI, as agreed by the Implementing and Executing Agencies and the participating countries.

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But who should be responsible for taking up this challenge? Public participation is essential in grappling with the important issues related to water management. We must not believe that water management is the responsibility of others. The management of water is everybody's responsibility. In the Caribbean context, farmers are good examples of resource managers. Their farming practices (such as slash and burn or overuse of pesticides), in the upper reaches of watersheds, unless properly managed (by these same farmers), can compromise the quality and quantity of water. They are however only one of the many groups who could be considered resource users, and by extension, resource managers. Tourist operators, industries, and individuals all have roles to play. But how?

The CBRA Manual



Traditional solutions propose funding, at the level of governments. Beyond funding, however, empowerment of individuals is key. The interest of individuals in Union Island, St. Vincent & the Grenadines in becoming more empowered with respect to monitoring of their water resources was, in fact, the catalyst for preparation of the GEF-IWCAM's Community-Based Resource Assessment (CBRA) Toolkit. It includes a series of tools, which can be used to empower groups and communities to take matters into their own hands, in relation to water management. The publication has been designed to be highly interactive, taking advantage of the latest technology and recognizing that today's youth need a different type of stimulation, if they are to show interest in environmental education.



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The CBRA Toolkit is engaging, visual, and informative. It encourages and facilitates group activities and sharing of ideas, towards identifying solutions to common water resource management problems of SIDS. It is however not an academic textbook. Nor is it designed for technocrats. It focuses primarily on communities and schools and seeks to make science “fun”. It also uses real-life examples from the Caribbean region to bring the topics “down- to-earth”. This guideline document, although prepared with the Caribbean in mind, can be used in other SIDS regions, as a reference document when engaging groups in discussions on water management.



Working Group I

In April 2011, the GEF-IWCAM Project organized a regional train-the-trainers Workshop for the CBRA Toolkit, which was conducted by Sustainability Managers, consultants. The Workshop was held at the Fort Young Hotel in Roseau, Dominica. The training objective was to enhance the capacity of participants to effectively use the CBRA Toolkit to train the communities in which they work to protect surrounding ecosystems and sustainably manage their natural resources, particularly watersheds and coastal zones. Participants were drawn mainly from government organizations as well as from local community groups in twelve participating countries.

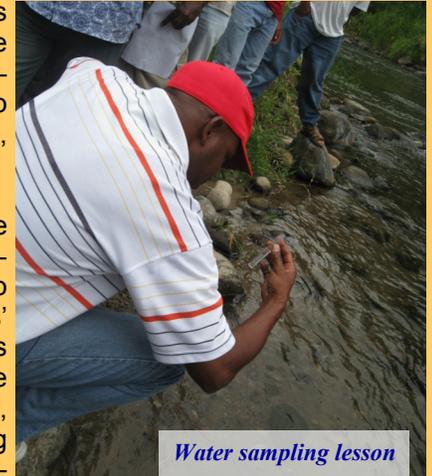
The workshop was designed as a model for what participants themselves would do when they train members of the community. The workshop demonstrated some of the fa-



Working Group II

cilitation tools and tips that participants can use to train community members. It was designed to be engaging, informative, entertaining and visual.

Along with the CBRA Toolkit, participants were introduced to the CBRA Facilitators' Guide, which provides greater details on the process for setting up, organizing and holding an effective CBRA workshop.



Water sampling lesson

Minchinton Burton, Director of the Forestry, Wildlife and Parks Division of Dominica's Ministry of Agriculture, Fisheries and Forestry welcomed participants. He described Dominica's relatively pristine environment – beautiful forests and rivers, and acknowledged that they are increasingly being subjected to different threats. He stressed the value of a tool which can help communities better understand, monitor and protect land and water resources.



Demonstration water sampling using the La Motte kit

Workshop participants visited Palm Grove in the Roseau Watershed to put some of these approaches into practice. With the assistance of representatives of DOWASCO and the Forestry Division, they identified examples of land degradation and sustainable land practices and observed use of a water quality testing kit.

The CBRA Manual and Facilitators Guide can be found at:

<http://www.iwcam.org/documents/meeting-reports/gef-iwcam-community-based-resource-assessment-train-the-trainer-workshop>.

...“Connecting the Dots!”...

Regional Journalists Sensitized to Watershed and Marine Conservation Issues

Opening Session



The GEF-IWCAM Project collaborated with the Caribbean Large Marine Ecosystem and Adjacent Regions (CLME) Project and the Association of Caribbean Media Workers (ACM) in hosting a training workshop for journalists in Trinidad & Tobago from 17 – 19 May 2011. The training focused on covering natural resources management and conservation issues.

Twenty journalists from 16 Caribbean countries participated.

The objectives of the Workshop were to:

- improve understanding amongst journalists of the issues and challenges facing Caribbean people as they seek to better manage freshwater and marine resources
- share knowledge on the condition of island watersheds and shared Caribbean marine ecosystems
- stimulate interest in the work of the CLME and GEF-IWCAM Projects, their approaches, results and recommendations
- provide resources to enable improved coverage of these issues

The collaboration was designed to increase the ability of regional journalists to more effectively cover issues related to Caribbean watersheds and coastal areas and shared marine ecosystems.

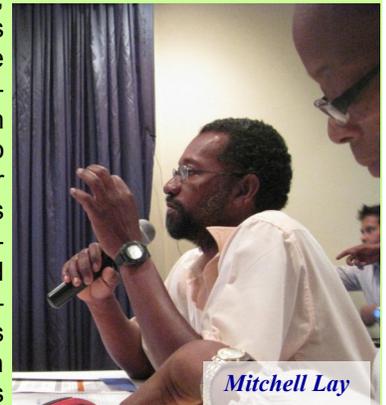
Opening the workshop, Minister Roodal Moonilal, Minister with responsibility for the Environment in Trinidad & Tobago, noted that in Small Island Developing States (SIDS), problems of high population densities, population growth, urbanisation and increased residential and tourist resort developments have led to contamination of aquifers and surface water and deterioration of coastal water quality. This has made the GEF-IWCAM Project a critical initiative in the region as the SIDS strengthen their resolve to implement an integrated approach to management of watersheds and coastal

areas.

According to Vincent Sweeney, Regional Project Coordinator of the GEF-IWCAM Project, “this workshop is critical in supporting the objectives of GEF-IWCAM, which include to share lessons and disseminate good practices which have been proven in the Caribbean region. We have excellent examples from Bahamas to Tobago which deserve worldwide attention. The work in Tobago will be of particular interest to journalists and will hopefully encourage replication in other Caribbean islands”.

Maria Elvira Talero, Stakeholder and Public Participation Expert of the CLME, said, “The workshop represented a crucial milestone for the Caribbean Large Marine Ecosystems project, given the fundamental role journalists can play in raising public awareness of the need for sustainable use of the Caribbean shared marine resources.”

Mitchell Lay, Head, Antigua & Barbuda Fisheries Alliance and Chair of the Caribbean Network of Fishersfolk Organisations dealt with governance and the need to meet societal objectives for present and future benefits and added that good governance brought positive and long term results. He disclosed that there are as many as 400,000 fishers in the Caribbean contributing as much as 6%-8% of regional GDP.



Mitchell Lay

Head of ACM, Wesley Gibbings, speaking about the challenges which face media coverage of water resource issues enunciated the need for greater education in so far as watershed management was concerned. He felt that the more journalists knew about the issue the easier it would be for them to deal with the reporting on same.

Workshop activities included panel discussions, interactive workshop sessions involving subject experts and senior journalists, and, brainstorming of story concepts and ideas.

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Participants were given a first-hand view of critical watershed, coastal and marine issues and responses through a visit to the Courland Watershed and Buccoo Reef in Tobago, site of the GEF-IWCAM Trinidad and Tobago Demonstration Project, which was implemented by the Buccoo Reef Trust (BRT). This was introduced through an excellent and comprehensive presentation on the value of coral reefs by Barry Lovelace, Environmental Education Associate with the BRT.

A review of the field trip included observations of the participants. The journalists were particularly appreciative of the field trip which they felt had been well-organized. First-hand experience of both the watershed and the reef— seeing the effects of unsustainable land activities on the watershed and coastal ecosystems - was very vivid. Byron Buckley of the Jamaica Gleaner, remarked that it “helped them to connect the dots!”

Draft guidelines, meant to assist journalists in their coverage of watershed, coastal and marine issues, were considered and discussed at length. They will be published in the coming months.

View from the Courland Watershed with the Buccoo Reef in the distance.



Journalists in the Field!

Reef tour boat



Pigeon Point



Participants on fieldtrip



Identifying coral from glass-bottomed boat



Journalists “walk the walk”...

“Hard news” vs. “Soft news”?

A roundtable discussion comprising a panel of journalists was moderated by Wesley Gibbings and included Enrico Woolford and Anika Kentish. The topic was what was being defined as “hard news” versus “soft news” relative to environmental stories. The session was dominated by discussions of the difference between “hard” and “soft” news and the importance of such stories in the daily news agenda. Consensus was that too often environmental stories were relegated to the back burner because news editors and editors felt those stories weren't important enough to warrant valuable news space. Sensitization of the media, therefore, is all the more important.

The Buccoo Reef Trust

Barry Lovelace, Environmental Education Associate with the Buccoo Reef Trust, gave participants an excellent introduction to coral reefs, their importance and the threats that they face. See “*The Plight of Coral Reefs in Trinidad and Tobago: What are we Doing?*” at the following link:

<http://www.buccooreeftrust.org/involving-citizens/learning-resources>

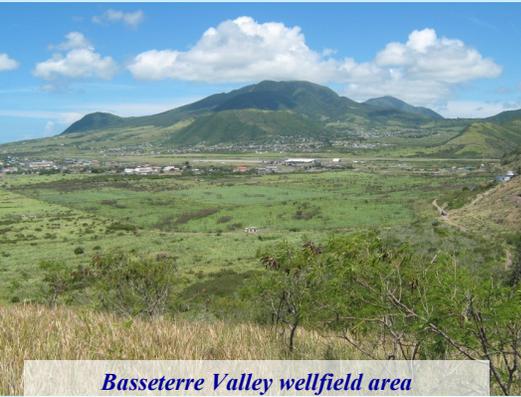
For more information contact Barry at: b.lovelace@buccooreef.org



(Continued from page 2) *This article was submitted by Dr. Halla Sahely, GEF-IWCAM SKN Demo Project Manager*

A comprehensive plan was devised following thorough stakeholder consultations for the Park. As such, the work of the Project has provided a clear roadmap for moving forward as the government and surrounding communities continue to strive towards making the vision of a thriving National Park in the middle of Basseterre a reality.

Together with the designation of the protected area as a means of reducing stress on the aquifer, the Demonstration Project also had among its goals to demonstrate best practices for improved water resources management and mitigation of threats from pollution.

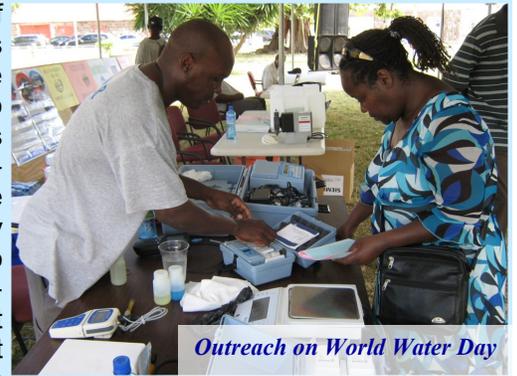


Basseterre Valley wellfield area

The Project began with a comprehensive hydro-geological survey of the Basseterre Valley Aquifer. This survey has been critical for formulating a strategic plan for the integrated management of the aquifer. As a result, the Water Services Department is now better able to make rational and informed decisions over both the short and long terms. In addition to this work, various other surveys were conducted including an assessment of land use and zoning, threats from pollution and a review of the legal enabling environment. These studies set the stage for crafting of various on-the-ground activities to address some of the critical issues identified.

In terms of improving water management, this Project enabled the purchase and installation of critical equipment to help prevent unnecessary water losses in the distribution system. The Water Services Department (WSD) has installed automated tank level controls at two locations within the Basseterre Valley to prevent storage reservoirs from overflowing. As a result, hundreds of thousands of gallons of water have been saved over the last year. In addition, bulk water meters were procured and will be installed in strategic locations throughout the distribution system so that water losses can be quantified, and leaky pipes located and repaired quickly.

In terms of mitigating threats from pollution, the project sought to address two areas of concern. It collaborated with the St. Kitts Electricity Department to install an oil / water separator at the Needsmust Power Plant. This



Outreach on World Water Day

activity has reduced the threat to the aquifer and the adjacent coastal area by intercepting oily waste before it is discharged outside the boundaries of the plant. Over 600 gallons of oily waste have been intercepted and pumped from the separator for safe disposal since March 2011.

Another one of the identified threats to the Basseterre Valley Aquifer is pollution from the inappropriate disposal of domestic wastewater. A 5-day training workshop in best practices related to the design, construction, inspection, operations and maintenance of septic tanks and other on-site wastewater treatment technologies was conducted in February 2011. Over 30 persons participated including environmental health officers, building inspectors, architects, engineers, plumbers and contractors from both St. Kitts and Nevis.

Other on-going capacity building and institutional strengthening activities include a series of seminars to sensitize various government departments to the outcomes of the Project and the management plan for the aquifer. Also, a new Water Resources Management Act has been drafted to address gaps in the current legislation and to truly enable integrated water resources management in St. Kitts.

The project has also enabled numerous activities to engage the public through education and outreach. These include several town-hall style meetings, a live TV panel discussion, public service announcements and a jingle promoting the project, newspaper articles, visits to schools and site visits to wells within the Valley to engage children and teach them about integrated water resources management.



Live television panel discussion, World Water Week 2011

Caribbean Technicians Trained in Environmental Impact Assessment Review

Excellent. Enlightening. Absolutely essential. Practical. Refreshing. Relevant. These were some of the phrases used by participants to describe the recent GEF-IWCAM Environmental Impact Assessment (EIA) Review Workshop. The workshop, which included representatives from 12 participating countries, was held in Saint Vincent and the Grenadines from June 7-9, 2011. It sought to train participants in all aspects of the EIA process, including scoping of terms of reference, preparation and design of review templates, the EIA process and its role in decision-making. Participants also evaluated the EIA process in their home countries, shared experiences of good practices, and learnt of ways that it could be improved.

The workshop was facilitated by Dr. Janice Cumberbatch, a Caribbean consultant and lecturer at the University of the West Indies Centre for Resource Management and Environmental Studies (UWI/CERMES), who has significant experience in both conducting and reviewing EIAs throughout the region and training in the subject. Workshop participants not only benefited from the expertise of Dr. Cumberbatch, but also from the collective experience and knowledge of the group. They have plans to continue supporting each other through an informal list-serve and discussion group.



Working session

The success of the workshop underscored the importance of skilled reviewers of EIAs in order to promote sustainable development throughout the region.

The workshop resources are available at:

<http://www.iwcam.org/documents/meeting-reports/environmental-impact-assessment-review-training-workshop>.



Training participants

The Bahamas' IWRM Stakeholders Symposium

The GEF-IWCAM Regional Project Coordinator (RPC) participated in an Integrated Water & Wastewater (IWRM) Stakeholders Symposium, convened on June 21 and 22, 2011 in Nassau, the Bahamas. The symposium was sponsored by GEF-IWCAM, CEHI, the CWWA, the Water & Sewerage Corporation, the BEST Commission and the Department of Environmental Health of the Bahamas.

The Symposium's main aim was to advance development of an IWRM Plan for the Bahamas. In addition to representatives of the sponsoring agencies, it was attended by representatives from New Providence and the Family Islands. The Minister of State in the Ministry of Environment, Honourable Phenton Neymour, and the Director of the BEST Commission, Philip Weech, were both present at the Opening and other sessions.

Sessions provided an opportunity to inform on progress made with the Demo projects in the Bahamas (Andros and Exuma) and of broader successes in IWCAM project implementation. Local representatives presented in relation to amendments to the Water & Sewerage Act; Forestry & Water; Agriculture & Water; Tourism & Water; Coastal Zone Management; and on the Exuma IWCAM Demo.

The second day of the Symposium featured focus group sessions with Bottled Water suppliers, Engineers, and Contractors. In addition Working sessions looked at a Report to Develop an IWRM Plan for the Bahamas, prepared in 2006. Two working groups discussed topics of relevance to the IWRM Plan, reviewed policy objectives and activities suggested, identified gaps, prioritized activities and made recommendations for additional activities.



Participants in the Symposium

World Environment Day 2011:

Excerpts from Caribbean WaterWays, June/September 2009 feature article :
 “Conserving Forests for Better Water”, very relevant to this year’s WED theme:

Forests : Nature at Your Service

“Forests are an integral part of the water cycle. They intercept rainfall, evaporate moisture from vegetative surfaces, transpire soil moisture and maintain soil infiltration, thereby influencing the amount and quality of water available. As water passes through a forest ecosystem the soil traps sediment and filters out pesticides and other pollutants from upslope land uses and activities. Forests stabilize the soils by helping to prevent erosion as ground vegetation, litter and plant roots protect the soil during periods of heavy rainfall, reducing the impairment of water quality due to sedimentation. As rainfall is intercepted, rapid runoff and flooding is also reduced.

Most importantly perhaps, forests play a role in recharging and maintaining the quality of groundwater. Water utilities know well that changes in land use can affect the quality of water at intakes, often leading to greater treatment costs.

Yet, even as the demand for water grows, Caribbean forests are declining in both size and quality.

Looking around at the green hillsides of the Caribbean, we might be tempted to think that our water supplies are guaranteed for many years to come. However forests face numerous threats, among them: conversion for agriculture or for development (residential, industrial and commercial uses, roads, paved areas etc.); wildfires; insect outbreaks; and harvesting for timber.

“Forests feed our rivers and are essential to supplying the water for nearly 50% of our largest cities. They create and maintain soil fertility; they help to regulate the often devastating impact of storms, floods and fires.”

- UNEP, 2011

Managing primary forest and expanding the forest reserves in each watershed is important if we are to have sustainable water supplies in the future. Better communication and cooperation between different sectors is needed. The development and implementation of good management practices is important to ensure that existing forests protect and enhance the freshwater environment which ultimately also affects coastal water quality as well. Better integration of forest and water policy, plans and measures is vital to sustainable management of water resources.”



Participating Country Focal Points, Demonstration Projects and others are invited to submit articles. Please contact Donna Spencer at dspencer@cehi.org.lc

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