CARIWIN 2nd Senior Administrator Workshop

January 19-20, 2009

CIMH, Barbados

Workshop Report

Main objectives of the workshop:

- Provide forum for interchange and discussion on topics related to CARIWIN amongst project partners and stakeholders
- Review project progress
- Stimulate learning about current project initiatives in National Water Information Systems, Community Water Strategies, and the Caribbean Drought and Precipitation Monitoring Network
- Build consensus on the way forward for these initiatives
- Engage new stakeholders

Participation:

Barbados	CIMH	Adrian Trotman
		Dr. David Farrell
		Margaret Pestaina-Jeffers
		Kailas Narayan
		Judy Padmore
		Kathy-Ann Caesar
		Adalene Ifill
		Shawn Boyce
		Cherie Pounder
	Researcher	Shontelle Stoute
	UWI-CERMES	Dr. Adrian Cashman
	UWI	Dr. John Charlery
	UWI-CGDS	Carmen Hutchinson-Miller
	CDERA	Elizabeth Riley
	Ministry of Agriculture	Carlyle Bourne
	Ministry of Environment	Nigel Jones
		Charles Yearwood
	Meteorological Service	Hamden Lovell
	Water Authority	Alex Ifill
		Jaime Paul
	UN FAO	Dr. Lystra Fletcher-Paul
	CIDA	Yuri Chakalall
	IICA	Joseph Pelter
Canada	McGill University	Dr. Chandra Madramootoo
		Catherine Senecal
		Alicia Suchorski
	PFRA	Trevor Hadwen
Grenada	Ministry of Agriculture	Trevor Thompson
		Imron George
	PSIA Meteorological Office	David Robertson
	NAWASA	Cosmos Charles
Guyana	Hydromet Service	Bhaleka Seulall
	National Drainage and Irrigation Authority	Timothy Inniss
	University of Guyana	Dr. Paulette Bynoe
Jamaica	Water Resources Authority	Angella Graham
		Geoffrey Marshall
St-Lucia	CEHI	Dr. Christopher Cox
	consultant (NWIS)	Jim Joseph
Serbia	consultant (NWIS)	Dejan Lekic

Agenda:

The full agenda is in Appendix. The content of each presentation can be viewed on the CARIWIN website. The main points of discussion are summarized below.

Summary of main messages:

Welcome Address from Dr. David Farrell

Ideally the benefits from CARIWIN will be carried over beyond the project's three pilot countries to the entire region. There is a need to encourage more discussion on gender in the water sector in order to address imbalances. The issue of managing information is crucial to the decision-making process. Drought and precipitation monitoring are critical to the way the manage water. An effort will be made at CIMH to tie-in CARIWIN with other initiatives in the region.

Welcome Address from Dr. Chandra Madramootoo

In pursuing the goal of IWRM, reliable and accurate data is needed for technically sound and professional credible decision-making. Managers must have tools to present information in a format that is understandable by policy-makers, politicians, and the public. Such information products will also facilitate the incorporation of community in this process.

Grenada National Water Information System (NWIS)

Trevor Thompson

There is a great excitement surrounding the upcoming launch of the Grenada NWIS as both the public and private sectors have grasped the potential benefits to be reaped from the system. Already, during the development phase, it has brought together a wealth of data that was lying dormant around Grenada and rallied many stakeholders from various sectors such as water sports, fisheries, forestry, agriculture, youths, Ministry of Health, and St George's University. Efforts must be made in order to involve the National Disaster Management Agency in the NWIS.

Jim Joseph

The Grenada NWIS is linked to an extensive database, yet it allows the user to extract and present data in a format that the user is familiar with such as a Word file or an Excel spreadsheet. The system's greatest feature is that it allows for even users who are unfamiliar with data to get useful and meaningful information at a glance on a map. It also allows for remote access, as it is hosted on the internet.

Dejan Lekic

The consultants Lekic and Joseph have designed and developed a NWIS for Grenada based on the premise of using reliable information to create knowledge, which can then be the basis for sound decision-making. The NWIS will promote information exchange through one national database. All data is geo-referenced to benefit from the powerful map making technologies, including overlays with GoogleEarth as a background. There is a powerful database management system incorporated which allows anybody with internet access to upload files, which are then added to the NWIS at the System Administrator's discretion.

Dr. Lystra Fletcher-Paul

The key question related to the success of the NWIS is how to promote sustainability. Lessons learned in the region indicate that ideally the NWIS is supported by clearly articulated institutional mandates with associated policy and legislation; on-going investment of financial resources; training of users to create demand for information products; and constant updating to ensure that the needs of users are met in a timely manner.

NWIS Discussion Points:

- Linking of NWIS to statutory functions
- Need for successful and prominent people to champion the cause
- Governments need to formulate a policy on access to information
- The access to information policy should approach the question of pricing of information provided to private enterprises as an opportunity to bridge the gap with financing
- The data cycle should be evoked to encourage/oblige users of data, such as researchers for example, to return the results of their analysis for its inclusion in the system and thus promote enrichment of information available
- It is possible for government to classify the data so that access to sensitive information, or data sets, is restricted
- A Water Information System at a regional level would only be as strong as its national members
- CARICOM Secretariat has mandated the rationalization of the water sector in the Caribbean
- There is a need to put regional capacities to work to support smaller countries that do not have resources to keep water resources professionals on-staff

Gender Equality (GE) and Community Water Strategies (CWS)

Alicia Suchorski

A survey of households was conducted in four parishes of Barbados to gather baseline information on access to water and water use by men and women. It was found that household

tasks related to water were predominantly a female responsibility. It showed that women's lifestyles were more likely to be affected than men's in periods of water restriction or shortage.

Adalene Ifill

Gender equality with respect to water resources in the Caribbean sometimes is seen as a non-issue, as there are not always the striking images of water buckets. The issue remains an important one in terms of including women in water resources management. CARIWIN GE Strategy includes training CIMH personnel and partner country personnel in a holistic manner, which has been undertaken with excellent involvement of community groups. The message was conveyed regarding the need for females to be included in water management in order to get balanced decisions. There has been a noted positive change in perception toward GE. Publications provided by CARIWIN in the CIMH library include information on gender equality in water management.

Dr. Paulette Bynoe

Recommendations were made for the implementation of water management projects at the community level: stimulate a multi-stakeholder process which includes vulnerable groups; collect sex-disaggregated data; contextualize each project to understand the social, cultural, economic and institutional setting at the local level; the different roles ascribed to men and women need to be understood; identify barriers that may prevent women's participation.

Catherine Senecal

CARIWIN is working toward establishing a framework to guide the development and implementation of Community Water Strategies (CWS) in the Caribbean, based on IWRM principles. Each partner country will then be able to use this in formulating a CWS for their pilot community. It is envisaged that the CARIWIN project will facilitate national and local workshops to bring stakeholders together in this effort, which should tie-in all IWRM tools made available through CARIWIN, all partnerships and build on existing water management capacity and organisms.

Dr. Adrian Cashman

Developments in the region in the last year include the COTED resolution to undertake a comprehensive study of water management practices. The GEF-IWCAM sponsored meeting last month was a first step at looking at the various institutions involved in water management to identify possible synergies and eliminate overlap by turning it into collaborations. The process identified a lack of partnership building at the community level.

Dr. Chandra Madramootoo

There are few examples in the Caribbean where countries have adopted the principles of IWRM in a clear way, and where the application of these has lead to social progress. The countries in

the region have undercapitalized water sectors. There is a need to empower the communities and for an institutional entrenchment of policies in IWRM.

GE and CWS Discussion Points:

- The first threat to IWRM is out-dated legislation
- Community participation must move beyond information sharing to mobilization and empowerment
- IWRM is an abstract concept which is difficult to convey to countries
- There is a need for facilitators to indicate how to move it forward and to orient
- Best starting point is to build capacity and to look to immediate emergencies such as public health and water conservation
- Government and NGO collaboration has worked well for the implementation of IWRM in Grenada
- Jamaica's experience indicated that formally signed agreements with clearly defined guidelines work well for partnerships between government and community
- The WMO intends to establish a climate field school in the Caribbean region, perhaps having linkages with CARIWIN, in May 2009
- The Watershed Protection Manuals contain practical ideas about involving communities and these are provided free from the USEPA
- CARIWIN could do more to make linkages between water and human health, and collaborate with CEHI on this

Caribbean Drought and Precipitation Monitoring Network (CDPMN)

Opening remarks from Dr. David Farrell

Information generated by the CDPMN will benefit various sectors in the region. The CDPMN aims to deliver relevant products to the region by 2010. This will of course require the collaboration of countries to provide CIMH with data.

Opening remarks from Dr. Chandra Madramootoo

CARIWIN seeks to address how to link the various manifestations of drought, be it hydrological, meteorological, or socio-economic, etc., within the pilot communities. The CDPMN will be used in the pilot communities as more than an early warning system. It will engage community and government to examine the question of how to build resilience to respond and prepare for episodes of drought and excess precipitation.

Liz Riley

A strategic alliance between CDERA and CIMH is important as CIMH has expertise in hydrology and meteorology. The CDPMN is an opportunity to strengthen national inter-agency collaborations and should seek to engage the national focal points in climate change. The

phase 2 of JICA funded project is an opportunity for CDERA and CIMH to collaborate, as it looks at community-based mapping and how communities respond to flood hazards, in countries including Grenada and Guyana.

Dr. John Charlerly

A huge problem in the region is the availability of data for proper analysis. The trends for Barbados show a constant warming for the future. Modeling also indicates that consecutive dry days are on the increase and consecutive wet days are decreasing. Implications for water resources management include the adoption of mitigation and adaptation strategies.

Adrian Trotman

The CDPMN will produce useful information that will serve as tools for decision-making. Indices of severity will be developed to describe threat of flood or drought. Expanding partnerships and drawing on existing information (such as the NWIS and the 3 month precipitation outlook already generated by CIMH) will contribute to the development of the indices. The CDPMN has attracted attention of foreign researchers and donors who intend to partner with CIMH to expand the network to two additional countries beyond the original three from CARIWIN. It is the genesis of a coordinated early warning system.

Trevor Hadwen

The North American Drought Monitor (NADM) is a regional collaboration between Canada, Mexico and the United States of America to measure drought and link it to impacts. It provides a consistent rating system which is useable by news media and easily understood by the general population. Ground-truthing of the rating relies on local contributions, such as photos from local producers or emails from individuals. A rich scientific collaboration at the international level benefits each of the three parties. Use of local knowledge and collaboration of local experts allows the Monitor to be relevant with a negligible budget.

Kailas Narayan

Floods are the natural disaster type causing the most fatalities. In the Caribbean region, only larger countries such as Trinidad, Jamaica and Guyana have well established systems of river flow monitoring. A current project in the region looking to address the lack of data for water resource management is the Carib Hycos, which is installing monitoring networks throughout the region.

Shawn Boyce

Flood forecasting and early warning systems are needed to preserve life and to reduce material damage. These systems must be scaled appropriately to the size of Caribbean countries. CIMH will provide expertise to countries in calculating lead-times for flood warning.

Shontelle Stoute

The application of internationally accepted drought indices [PDSI and PSI] to the practice of drought prediction in Barbados was studied. The calculated indices showed a high correlation with soil water content analyses.

Trevor Hadwen

Drought mitigation requires a suite of tools first to qualify and quantify objectively, which can then contribute to the development of policies and strategies for preparation, coping and adaptation. It is critical to strategize for drought situation, even in times when wet conditions prevail. Currently, the NADM is not linked to policy in Canada. Ratings do however link to tax deferral programs and livestock drought assistance program. Authors of monitor come under pressure from lobby groups once the ratings are linked to compensatory packages.

CDPMN Discussion Points:

- To describe climate, accurate data for period of 30 years is required, and currently not all countries are collecting data and/or sharing data with CIMH
- Advocacy of the CDPMN will be paid back in the benefits of the products produced
- Health aspects of drought and flood events should be explored as a major driver in the expansion of the CDPMN; possible collaborations should be explored with CEHI
- Work on how to build a mailing list to inform funding agencies, governments, and NGO's to include wider circles
- First step for the Caribbean is to provide tools such as CDPMN for policy-makers
- The degree of a disaster often depends on the degree of vulnerability; each region must be approached within their context
- CDPMN requires buy-in from meteorologists, hydrologists and a spectrum of players; it must be a collaborative effort and cooperative response to the called for shared data
- Canada/Mexico/US have benefited enormously from the mutual sharing of data and scientific collaboration through NADM
- CIMH should start small with the CDPMN and gain momentum as people see the need
- Example of news media weather forecasts raises question of whether there are other products that can be incorporated
- Public service must become proactive in order to serve the public
- Need for a monthly forum to meet for discussion and to put structures in place
- Need in the region for meteorological data to move beyond requirements for aviation and encompass needs for water resources management
- Guyana's Hydromet service is moving from data to information products and using students to digitize data
- Jamaica will definitely benefit from CDPMN
- Success likely to be achieved if there is a specific designation of the end user and products are taylor-made to satisfy their needs
- CDPMN will rely on CARIWIN country partners to bring relevant partners to the table in country for CDPMN discussions and planning