Abstract:

WATER AND CLIMATE CHANGE IN THE CARIBBEAN

October 2002

Paper Prepared by *Impact Consultancy Services Inc.* in collaboration with the *Caribbean Environmental Health Institute* and the *Organization of American States, Unit for Sustainable Development and Environment*

Funding Provided by *International Secretariat of the Dialogue on Water and Climate*

The 2001 Report of the Inter-governmental Panel on Climate Change (IPCC) provides a very daunting assessment of the vulnerability and adaptive capacity of Small Island Developing States (SIDS) to climate change and climate variability. The Report notes in part that the SIDS are likely to be among the countries most seriously impacted by climate change because their adaptive capacity of human systems is generally low and their vulnerability high. The report cautions that islands with very limited water supplies are highly vulnerable to the impacts of climate change on the water balance. The greatest vulnerabilities are likely to be in unmanaged water systems and systems that are currently stressed or poorly and unsustainably managed due to policies that discourage efficient water use and protection of water quality, inadequate watershed management, failure to manage variable water supply and demand, or lack of sound professional guidance.

Taking the aforementioned IPCC Report as its cue, this Paper seeks to articulate a Programme of Action for SIDS in the Caribbean that can be applied to adapt to the hydrological effects of climate change and climate variability and to additional uncertainty, so as to lessen their vulnerabilities. The Paper is meant to contribute to the Global Dialogue on Water and Climate that will feed into the 3rd World Water Forum, to be held from 16-23 March 2003 in Kyoto, Japan. Part 1 of the Paper provides the geographical context of small island states in the Caribbean. Part 2 examines the theoretical constructs of climate change, climate variability and economic, social, and environmental vulnerability. The Paper argues that because of the centrality of water resources to economic, social and environmental sustainability, any negative impact on the water balance will exacerbate the social, economic and environmental vulnerability of small island states. Part 3 of the Paper examines the status of water resources in Caribbean SIDS and assesses the capacity of national institutions to manage water resources effectively. The effectiveness and appropriateness of the Decision Support Systems (DSS) within the water sector is also assessed. In this regard, the Paper notes that little use is being made of existing climate information. This part of the Paper concludes that building capacity to make effective use of such information, within the broader context of an Integrated Water Resource Management (IWRM) ethic and the application of IWRM techniques, offers Small Island Developing States the best hope of mitigating the economic, social and environmental impacts of climate change and climate variability. Part 4 of the Paper examines the vulnerability of Caribbean countries to climate change, in terms of the likely impacts on Human Health and Sanitation; Agriculture and Food; Coastal Zones and Marine Ecosystems; Hydrology and Water Resources and Insurance and Financial services, respectively. Possible coping strategies are proposed in each area. The Paper concludes in Part 5 by proposing a Programme of Action to move the Dialogue on Water and Climate (DWC) towards the Third World Water Forum and beyond.

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