

# IWRM Indicators



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# IWRM Indicators and Outcomes for the IWCAM Project

- For use in IWCAM Demonstration Projects
- For use in National IWRM Plan
- GEF Categories of:
  - Process
  - Stress Reduction
  - Environmental Status

# The Use of Indicators for IWRM Plans and Roadmaps

- Indicators should be developed in conjunction with IWRM Plans and Roadmaps
- Indicators integral to the IWRM Plans / Roadmaps
- Indicators provide baseline and ongoing monitoring and evaluation

# IWCAM Indicators Activities

- Consultancy to develop IWRM indicators for Caribbean SIDS to begin in June/July
- IWCAM working with Demo Projects to develop and monitor indicators
- In the process of developing IWRM Plans, IWCAM working with countries to develop and monitor indicators

# Grenada Example

- GoG, CEHI, IWCAM, & UNEP-UCC, developed indicators for Grenada
- Support for developing “National Water Policy” (IWRM Plan)
- Primarily Process Indicators
- Also includes some Stress Reduction and Environmental Status Indicators

# Grenada's Process Indicators

- Regional Policy Level Indicators
  - Designed to measure awareness and buy-in at the regional level
  - Indicators? Outcomes?

# Grenada's Process Indicators (continued)

- Public Awareness Indicators
  - National awareness at the policy/decision maker level
  - National level public awareness of priority stakeholders. These test priority stakeholders' awareness of IWRM issues and their buy-in to the need for IWRM Plan and Plan development.
  - National level public awareness of broader stakeholders on IWRM and IWRM Planning
  - Indicators? Outcomes?

# Grenada's Process Indicators (continued)

- IWRM Plan Mechanism Indicators
  - Progress indicators towards development of an IWRM Plan. Focus on the establishment of the actual Plan. Closely associated with guidelines for Plan development.
  - Progress indicators towards establishing mechanisms for IWRM plan development.
  - Progress indicators towards public level buy-in to the need for IWRM in Grenada and the need for an IWRM Plan
  - Indicators? Outcomes?



# Grenada's Stress Reduction Indicators and Environmental Status Indicators

- Both the Stress Reduction and Environmental Indicators should be derived based on the various elements of the IWRM Plan
- It could include:
  - Reduced saltwater intrusion into coastal aquifers
  - Rehabilitated Watersheds and Catchment Areas
  - Key relevant drinking water quality parameter met

# The Use of Indicators in IWCAM Demo Projects

- Ideally, indicators for the demo projects would have been developed in the PDF-B stage.
- In lieu of this, IWCAM PCU suggests that each PMU develops demo project indicators to report against as soon as possible.

An aerial photograph of a river valley. A wide river flows through the center, with a dam visible on the right side. The surrounding hills are covered in dense green forest. The sky is overcast and hazy.

# Group Exercise: Indicators for Use in IWCAM Demo Project

- Develop at least one Process, Stress Reduction, and Environmental Indicator for a demonstration project
  - Name of Indicator
  - Rationale
  - Unit of Measurement
  - Data Sources
  - Who Responsible / Should Collect the Data

# Grenada's Process Indicators

## *Regional Level Policy Indicators*

| <b>Name of Indicator</b>        | <b>Rationale</b>   | <b>Unit of Measurement</b>   | <b>Data Sources</b>                   | <b>Who responsible/<br/>Should Collect the Data</b>  |
|---------------------------------|--|------------------------------|---------------------------------------|--|
| Endorsed Regional IWRM Strategy | The primary indicator at the regional level is the endorsement of an IWRM Strategy as the preferred approach for Water Resources Management in the Region at the highest levels namely the COTED and COHSOD meetings and the Ministers responsible for the Environment Meeting. If the strategy is endorsed at these meetings then there is significant awareness at the regional level and demonstrates a high level of political will at the regional level. | No. and type of endorsements | COHSOD, COTED and MOE meeting reports | CEHI in collaboration with the PIU of the IWCAM project and other regional partners should prepare the Strategy and relevant policy briefs for consideration by the senior policy and decision makers in the region. |

# Grenada's Process Indicators

## *Regional Level Policy Indicators*

| <b>Name of Indicator</b>  | <b>Rationale</b>  | <b>Unit of Measurement</b>   | <b>Data Sources</b>  | <b>Who responsible/ Should Collect the Data</b>  |
|---|---|------------------------------|--|--|
| Endorsement of the IWRM Strategy by "Champion" Ministers and Regional Technocrats | One of the steps towards the endorsement of the strategy at the regional level is the presence of "Champion" Ministers and regional technocrats who will lobby for the strategy at the regional meetings. Endorsements from these Ministers and technocrats would indicate some progress towards increasing awareness at the regional level on the need for IWRM as the preferred approach for Water Resources Management in the region | No. and type of endorsements | Meeting reports of "Champion" Ministers and Regional Technocrats | CEHI in collaboration with the PIU of the IWCAM project and other regional partners should prepare the Strategy and relevant policy briefs for consideration by the senior policy and decision makers in the region. |

# Grenada's Process Indicators

## *Public Awareness Indicators*

| <b>Name of Indicator</b>   | <b>Rationale</b>   | <b>Unit of Measurement</b>            | <b>Data Sources</b> | <b>Who responsible/ Should Collect the Data</b> |
|--|--|---------------------------------------|---------------------|---|
| Disseminated IWRM Strategy, Information Briefs and other IWRM PA/PE material | The first step in gaining endorsement would be increasing awareness via dissemination of appropriate communication materials to relevant Ministers, Permanent Secretaries and Influential bodies. After this preliminary step has been carried out, other aspects, such as face to face meetings can follow. | No. of documents sent out and to whom | Distribution Lists  | Local IWRM "champion" to provide the data       |

# Grenada's Process Indicators

## *Public Awareness Indicators*

| <b>Name of Indicator</b>                            | <b>Rationale</b>  | <b>Unit of Measurement</b>   | <b>Data Sources</b>     | <b>Who responsible/ Should Collect the Data</b> |
|---|---|------------------------------|-------------------------|---|
| No. of participants in competitions related to IWRM | Inter-school competitions on IWRM is a good means of promoting IWRM at the school level. The greater the number of schools participating in this competition, the greater the level of awareness and perhaps buy-in into the need for IWRM. | No. of participating schools | Record of participation | Local IWRM "champion" to provide the data       |

# Grenada's Process Indicators

## *IWRM Plan Mechanism*

| <b>Name of Indicator</b>                     | <b>Rationale</b>   | <b>Unit of Measurement</b>                     | <b>Data Sources</b>                                      | <b>Who responsible/ Should Collect the Data</b>     |
|--|--|--|--|---|
| Developed and endorsed IWRM Plan for Grenada | The primary indicator for the development of the IWRM for Grenada is the endorsed developed plan. All other indicators in this section are progress indicators towards the plan development. | Presence /<br>Absence of an endorsed IWRM Plan | Endorsement Statement /<br>Certificate;<br>Endorsed Plan | Task Force responsible for developing the IWRM plan |



# Grenada's Process Indicators

## *IWRM Plan Mechanism*

| <b>Name of Indicator</b>                           | <b>Rationale</b>  | <b>Unit of Measurement</b>  | <b>Data Sources</b>                   | <b>Who responsible/ Should Collect the Data</b>    |
|--|---|-----------------------------|---------------------------------------|--|
| Ratified International Conventions related to IWRM | Ratification of relevant international conventions indicates national interest in IWRM and is one step and a supporting element for the development of an IWRM Plan. This baseline situation analysis will identify these Ratified Conventions and the steps taken to implement these conventions. The follow up situation analysis at the end of the project will document the progress for the implementation of the Conventions. | No. of conventions ratified | National Environmental Reports (NERs) | Agency responsible for the preparation of the NERs |

# Grenada's Environmental / Water Resource Indicators

| <b>Name of Indicator</b>                          | <b>Rationale</b>   | <b>Unit of Measurement</b>  | <b>Data Sources</b>           | <b>Who responsible/ Should Collect the Data</b> |
|---|--|---|-------------------------------|---|
| Key relevant drinking water quality parameter met | Department and NAWASA have adopted a range of guideline proposed by the World Health Organisation (WHO) for potable water quality in order to protect human health | Percent increase in no. of samples meeting the recommended guidelines | Water quality monitoring data | Ministry of Health and NAWASA                   |

# Grenada's Stress Reduction Indicators

| <b>Name of Indicator</b>                        | <b>Rationale</b>   | <b>Unit of Measurement</b>  | <b>Data Sources</b> | <b>Who responsible/ Should Collect the Data</b>                                      |
|---|--|---|---------------------|--|
| Reduced saltwater intrusion in coastal aquifers | Many coastal communities are dependent on coastal aquifers for their water supply needs. In addition, issues associated with saline intrusion in irrigation are beginning to be of concern to the agricultural sector. While sea level rise is likely to be of concern to the groundwater supply in the future, of immediate concern is the issue of over-pumping. | No. and percentage of coastal aquifers that have been rehabilitated;<br>No. of aquifers that have a saltwater intrusion monitoring programme in place to provide early warning data with respect to saltwater intrusion | Monitoring data     | Ministry of Agriculture for irrigation of water and Water Utility for other aquifers |

# Thank You!

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