

Climate Risk Management Technical Assistance Support Project

Dominican Republic Country Study: Climate Risk Management in the Water Sector

The International Institute for Sustainable Development (IISD) is implementing the Climate Risk Management Technical Assistance Support Project (CRM TASP) in seven countries. Funded by the United Nations Development Programme (UNDP), this initiative aims at enhancing capacity to manage risks related to climate variability and climate change. The project's research activities concentrate on one priority sector in each country. In the Dominican Republic, the focus is on water resources.

Description

Climate risk management (CRM) aims to provide stakeholders with relevant decision-support information and tools to face the challenges brought about by increased climate risks. CRM integrates traditional approaches of climate change adaptation and disaster risk reduction. By increasing capacity to manage climate variability and change, CRM improves the likelihood of development programs achieving their goals.

In order to support coherent and sustainable climate risk management, the UNDP has commissioned three implementing organizations to conduct climate risk assessments in selected high-risk countries. IISD is responsible for studies in seven countries, including the Dominican Republic.¹

In each country, IISD implements the CRM TASP through the following six steps:

1. Stakeholder dialogue
2. Literature review on the state of the art of climate risk management
3. National inception workshop (presentation of literature review; decision on focus of the country study)
4. Focused risk assessment (primary research)
5. Participatory Scenario Development (PSD) workshop(s) (identification and prioritization of climate risk management options)
6. Reporting and dissemination

In the Dominican Republic, the project is currently in phase four. Based on a broad literature review on the state of the art of climate risk management and group discussions held at a national inception workshop in September 2010, it was decided to concentrate the primary research phase on one vulnerable watershed. Participants at the inception workshop felt that water resources represent a crucial link between many climate hazards and their impacts on the livelihoods of vulnerable populations. Within the geographical limits of one watershed, risks relating to floods, droughts and other climatic changes can be assessed more specifically; concrete risk management options can be devised; and policy recommendations to create an enabling environment for effective risk reduction at the national level can be drawn.

In collaboration with the UNDP country office and the National Institute for Hydraulic Resources (INDRHI), the government's water agency, IISD has elaborated a research plan involving the following elements:

- Research focused on the flood- and drought-prone Yaque del Sur watershed.

¹ The six other countries with which IISD is engaged are Honduras, Nicaragua, Peru, Kenya, Niger and Uganda.

- Compilation of climate and hydrological data, identification of current climate hazards and future climate projections for the watershed.
- Application of hydrological models such as the Pitman model and the Water Evaluation and Planning (WEAP) tool in the watershed, with a view to establish current and future water supply and demand, as well as to plan for integrated water management.
- Analysis of climate change impacts on key crops in the area using the DSSAT crop model.
- Community consultations on climate risk perceptions and current and future coping and adaptation strategies with IISD's CRiSTAL tool.² The consultations will on the one hand take place with members of the local irrigation councils, and on the other hand with other vulnerable groups, especially women, in the watershed.
- A Participatory Scenario Development (PSD) workshop will be held once the results of the above elements of the risk assessment are ready. Applying another proven IISD methodology, the PSD workshop will bring together key stakeholders of the watershed in order to prioritize risks and risk management options in a participative manner.
- Policy analysis will be undertaken in the project's last step. Entry points for the identified risk management options into national level policy will be analysed and recommendations for mainstreaming climate risk into water governance at different levels will be made.

Research will be conducted by INDRHI, IISD, local NGOs and consultants. The results will be summarized in a final project report. National capacities are strengthened through better risk information as well as trainings and advice in tools such as CRiSTAL, PSD and DSSAT.

Results achieved

Project activities have so far comprised stakeholder consultations, the initial literature review, which will be published shortly, and the definition of a detailed work plan for the main research phase. More specific results of the risk assessments in the water sector and risk management options are expected for late 2011.

Challenges

Key challenges in the implementation of the CRM TASP in the Dominican Republic include the engagement of national key stakeholders, the identification of value-adding but feasible research areas, the lack of capacities among national agencies, and the elaboration of a research plan that combines individual risk assessment elements in order to gain a comprehensive understanding of exposure, sensitivity and adaptive capacity.

Lessons learned

High participation of national institutions, especially government agencies, in risk assessment activities can be more time-consuming but is worth the effort as studies can be much better orientated towards important research gaps, capacities can be strengthened where there is a need, and there is more likely to be better uptake of results.

Contact

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² Further information about CRiSTAL can be found at: <http://www.iisd.org/cristaltool/>