

EXECUTIVE SUMMARY

1. The Project

The Regional Risk Reduction Initiative (R3i) for the Overseas Countries and Territories (OCTs) was designed to strengthen the capacity to predict and prepare for natural and human-induced hazards. The Project's geographical scope included: Anguilla, Aruba, Bonaire, Cayman Islands, Curaçao, Montserrat, Saba, Sint Eustatius, Sint Maarten, Turks and Caicos Islands, and Virgin Islands.

The European Commission provided €4.932m for R3i for an initial period of 3 years (2009-2011); the project was subsequently extended for an additional period, up to December 31st 2012.

The specific strategies to be employed included:

- establishing harmonised systems for risk identification, assessment, monitoring and early warning
- Institutionalising disaster risk reduction, knowledge management, and education
- Reducing underlying factors that contribute to risk exposure
- Establishing functional inter-sectoral response and recovery systems and mechanisms
- Developing and using risk indicators for the prevention and mitigation of natural disasters and assessment of their socioeconomic and environmental effects.

Specific outcomes of the project were to be:

- Support the disaster management departments and GIS units in the OCTs in their modelling, simulation and planning capacities
- Build upon the experience and knowledge in Cayman Islands to develop surge run-up and wave action models
- Integrate results of modelling into quantitative multi-hazard vulnerability maps for dissemination to a broad base of stakeholders throughout the OCTs
- Complete and/or initiate building vulnerability studies and improve quantitative risk assessment of critical infrastructure in OCTs and dissemination of the results to support the investment in hazard mitigation strategies.
- Conduct a feasibility study and pilot for the development of a real-time regional alert, warning and notification system throughout the OCTs, based on the experience of the Adapt Anguilla National Warning System.
- Define an overarching response and recovery capacity network and define resource sharing and mutual aid agreements.
- Take into consideration the outputs and outcomes of recent and existing initiatives and extend them to the OCTs.

- Disseminate best practices by organising practitioner seminars/workshops and online documentation and training
- Strengthen linkages among OCTs and other Caribbean countries so that they may network among themselves to continue to exchange information and best practices in a sustainable matter.
- Ensure country priorities are always understood and there is national ownership of the initiatives
- Share lessons learned and best practices in a diverse regional context.

2. Rationale for the Evaluation

At the end of the project, the UNDP contracted for an independent evaluation to assess the level of change in measured variables and level of success of the outputs and outcomes achieved. The objective of the Evaluation is to “demonstrate the level of change in the measured variables and level of success of the outputs and outcomes achieved” through the Project.

3. The Evaluation Methodology

The evaluation was conducted between November 19 and December 21, 2012. The scope of the review included field visits to: Anguilla, Aruba Bonaire (including Saba and St. Eustacius), Cayman Islands, Curacao, Montserrat, Sint Maarten, and the Virgin Islands. Remote interviews were conducted with personnel in Turks and Caicos Islands. Additionally, the team leader held inception meetings in Barbados with the Project Coordinator and officials in the EU Delegation in Barbados and UKAID. Two team members also met with the project Focal Points in Jamaica.

The review focused on 5 outputs in the project:

- i. Hazard Mapping and Vulnerability Assessment
- ii. Early Warning Systems
- iii. Response, rescue and recovery
- iv. Technical assistance
- v. Project coordination

The process followed in the review consisted of:

- A review of project documentation.
- An evaluation of Project Performance Indicators used to measure progress made by individual countries.
- Based on the documentation and performance indicator reviews, a draft questionnaire was developed, field tested in the Virgin Islands and then revised. The questionnaire was adapted for use in interviewing consultants and other experts used by the UNDP.
- Stakeholder interviews and focus group discussions were conducted in all the territories, except the Turks and Caicos Islands. Interviews were also conducted with 14 consultants and technical specialists who were involved with the major contract engagements for this project.

- Evaluators attended the end of project wrap-up review held in Jamaica, and reviewed materials distributed at that conference.
- Evaluators worked with field staff to update their Vulnerability Benchmarking Tool (B-Tool).
- On site observations were carried out on 8 islands.

4. Findings

The project is set in following context:

- The OCTs are small islands, highly vulnerable to a range of natural hazards including earthquakes, hurricanes, floods, landslides, tsunamis and volcanic eruptions. Other hazards that impact the region include water contamination, oil spills, infectious disease, and progressive environmental damage.
- The islands have limited natural resource bases, and there is high competition between stakeholders for land use.
- The OCTs are relatively inaccessible compared to continental land masses and this can result in delays and reduced quality of information in a crisis.
- Most of the islands have exposed interiors and narrow coastal zones.
- Their small populations and increasing population concentrations on coastal zones lead to higher risks of serious damage and high per capita costs for infrastructure and services.
- Their small economies with high dependence on tourism and related tourism development make them vulnerable to socio-economic pressures that are often at odds with sound disaster mitigation and climate adaptation strategies. Consequently, there is inadequate enforcement of existing laws with regard to planning approvals
- Slow rate in the changing culture from disaster response management to risk reduction
- Inadequate levels of human, technical and financial resources
- Inadequate political commitment
- Most islands had limited hazard forecasting ability and less capacity to respond to serious disasters before this project
- Due to affiliated vulnerabilities, the development of hazard assessment, warning and remediation systems on one island can yield lessons for all coastal zones and be applied to others.

This was an ambitious and complex project. It introduced new paradigms in disaster management and concepts of cross country cooperation not often encountered between the OCTs in the Caribbean. It was therefore expected that issues would be encountered in the development of the project and its execution.

- This project was generally regarded as well managed and coordinated
- About 80% of the countries rated UNDP's method of delivery to be very good and they appreciated the consultative approach and the attempts that were made by UNDP to ensure that the beneficiaries were involved in decision making.

- All countries, with the exception of one, agreed that UNDP was the best choice for project implementing agency.
- The project was very relevant to the needs and priorities of each of the participating countries although they were at different levels of disaster management and different levels of capacities
- The Project Outputs and activities were consistent with the recommendations from the 2010 B-Tool Assessment
- The project provided a very important forum for the OCTs to share experiences, to learn from each other, and to share knowledge in general and there were many examples given of transfers of information between colleagues participating in the project from different islands.
- There was also substantial exposure to new approaches in various aspects of disaster management.

The specific accomplishments are identified in the table below.

Expectations

- Increased capacity in hazard mapping and associated vulnerability assessments, to further be incorporated into spatial information systems to inform planning and development processes

Achievements

- All countries increased their capacities to create and manage hazard maps and vulnerability assessments, through 5 regional trainings, numerous national trainings and the provision of Geographical Information System (GIS) equipment and software. Trainees included people from planning, public works and environment departments.
- The project provided hazard and vulnerability geographical data-bases – applying EU INSPIRE standards - to countries which did not possess one.
- Most advanced countries took further steps with topographic and bathymetric data collection allowing coastal hazard modelling and mapping. Sint Maarten and the Virgin Island now have storm surge and tsunami maps based on advanced scientific modelling at a resolution allowing adequate decision making for development processes.
- Particular excitement appeared around field data collection on the vulnerability of countries critical buildings using modern portable technology (GPS / GIS devices). This simple methodology allows a continued data collection.
- Interesting work on vulnerability curves (Cayman), Geodetic and LiDAR surveys (Anguilla), landslides cut slope risk assessments (Virgin island, Sint Maarten and Anguilla) and seismic hazard (Aruba) has also been delivered.
- 4 countries (Anguilla, Sint Maarten, Montserrat and Aruba) are now dotted with an operational Alerting system, based on Anguilla's example and applying the Common Alerting Protocol standard.
- Their system forms a regional network, each country being capable of backstopping the other ones.
- Each country possesses email notification and automatic radio broadcast interruption systems.
- In addition:
 - Montserrat sirens are mended and automatized,
 - Montserrat alert system via Radio Data system (RDS – text messages sent to receivers boxes) is now complete and automatized

- Anguilla's existing system is enhanced and completed with a Marine radio alert system and 194 radio receivers delivered.
- First responders in Aruba are provided with 75 Smartphones with customized application ("App") working on Android and Apple and operated from a Cloud based platform.
- Policies and protocol are enhanced with templates including a CAP alerts message templates in 5 languages and a sound analysis of each country's specificities.
- A multi-lingual (English, Dutch, French, Spanish and Papamiento) public awareness campaign "STAY SAFE" was developed and rolled out in 2 countries, with numerous materials including public websites linked directly to email subscription to receive alerts.
- Non-pilot countries received plans and templates for their EWS development based on sound analysis of their EWS capacities.
- Aruba, Curacao, Turks and Caicos and Cayman islands now each have in place a light search and rescue team of 20 rescuers, equipped and trained according to INSARAG guidelines. During the project implementation period, 2 persons were successfully rescued by team Aruba and team TCI, proficiently using techniques and equipment acquired with the project.
- 5 countries (Aruba, Anguilla, Sint Maarten, TCI and Saba) are trained in oil spill management and have consequently updated their oil spill contingency plans.
- Montserrat emergency telecommunication infrastructure (VHF radios) is significantly upgraded to allow interconnectivity between the country's agencies.
- Emergency telecommunication systems are also upgraded in Anguilla, Curacao and Aruba
- Trainers from the Virgin Island government provided Shelter management trainings to 6 countries (Aruba, Curacao, Bonaire, Sint Maarten, Montserrat and Sint-Eustatius)
- Across 10 countries, 38 participants (on a total of 54) completed an Intensive Business Continuity Management (BCM) online course. 31 of them earned the professional designation of "Certified Continuity Manager".
- Each country assessed their comprehensive disaster management capacity in 2010, using a common evaluation tool (the Benchmarking tool "B-tool"). This
- Capacity built in response, rescue and recovery, in order to shorten recovery periods.
- Strengthened local disaster management structures and capacities in terms of tools and best practices to support

comprehensive disaster risk management

assessment was updated during the project's final evaluation in December 2012.

- OCTs Stakeholders shared experiences and best practices through numerous platforms including:
 - The Comprehensive Disaster Management Conferences in 2010, 2011 and 2012
 - Conferences on sustainable construction (ISE), disaster risk reduction (ACS and EIRD), tsunamis (UNESCO IOC), early warning system (WMO) and Geographical information systems (URISA)
- Internationally recognized experts in various field, worked alongside countries stakeholders, providing impetus and quality control to activities. Experts provided timely and targeted recommendations, and their involvement ensured that the project was on good track.
- Greater cooperation and coordination between the OCTs, with documentation and dissemination of best practices
- In many tangible and un-tangible ways OCTs have developed links, common practices and a sense of professional community.
- Best practices were captured and disseminated through the publication of 6 different booklets, a video documentary, and a digital compendium of all project's outputs.

Despite the achievements, the evaluators found:

- The project got off to a slow start and was not fully staffed and organized until 2010
- The needs and priority assessments developed at the inception of the project from the field were often “vague” or unrealistic
- There were delays in approving a one year extension of the project despite the fact that it became obvious that deadlines were not going to be met.. this results in anxiety among the stakeholders.
- The Project’s efficiency was affected by its size, complexity and short time frame
- Although they had technical expertise, contractors often had weaker project management skills and some had limited experience in the Caribbean. Some persons interviewed felt that the capacity of companies to handle technical assignments should have been more thoroughly investigated by staff who were familiar with the technical requirements of the project.
- Output budgets were changed during the life of the project to accommodate higher than anticipated costs. There were some frustrations expressed about the time required to make those changes.
- Many persons felt that they did not understand the procurement procedures and that these procedures caused significant delays.
- A number of instances were reported where working relations between government agencies and between the OCTs themselves were strained due to the pressure of completing assignments on time
- There were documented instances where some agencies were reluctant to provide information to their counterparts
- There are still some projects that are incomplete because of the early planning and start up problems
- Country expectations exceeded what the project could deliver on time and within cost
- Although the capacities of agencies had been greatly increased through the training and new equipment received through the project, these agencies needed more staff to be better able to manage the on-going work that has resulted from the project
- There continue to be concerns about the sustainability of the work done because stakeholders immediately outside of the project e.g. legislators, policy staff and politicians have not been fully apprised of their roles to ensure a continuing disaster management program.
- The project has apparently not “sold’ the benefits of a comprehensive disaster management program to private groups such as developers and the tourist industry, a feature that would ensure long term support for these initiatives.

5. Project Rating

Efficiency and effectiveness of use of EU funds “A” RATING

The Project Coordinator has confirmed that close to 99% of the funds have been used.

Progress towards outputs “A-“RATING

The project has delivered more than 95% the outputs as identified in the 2012 revised results and results framework and as identified in the R3I Project Document. This rating is based on the evaluation of outputs as of December 2012.

Progress towards outcomes “B+” rating

It is too early to evaluate on progress towards outcomes. Not all outputs had been delivered at the time of the evaluation and in some instances while the outputs had been delivered the countries had not as yet reviewed and commented on the deliverables.

Relevance of outcomes “Neutral” RATING

The relevance of outcomes cannot be determined by this evaluation. As such this outcome will be rated as, “Neutral”.

6. Lessons Learned

Despite some of the downsides to the project the R3I has shown that a project can be centrally coordinated and managed while benefits redound at the national level. There are a number of lessons to be learned:

- i. The project’s governance structure ensured that countries participated in the decision making – on the project’s board and on the technical management teams
- ii. UNDP ensured country concerns were usually resolved in a timely manner when possible, especially when it came to some vendors.
- iii. Project meetings were organized to ensure that country focal points were always kept informed about the project.
- iv. Appropriate technical expertise was retained to provide guidance and quality assurance and to ensure a source of continued technical support
- v. Complex and overly ambitious projects need sufficient time for implementation. This project was initially not provided sufficient time to be fully implemented.

7. Recommendations

- i. The project has developed the potential to track and report on information that could form an important part of the dialogue on climate change at a world level, not just for the Caribbean but for all small island communities.
- ii. The project set up a structure and number of forums where international experts and national and regional stakeholders could meet discuss these issues. There could be tangible long term advantages to pursuing this activity and keeping these issues in the public eye.
- iii. There are many lessons to learn from R3I and these lessons should be incorporated into any regional project on disaster management in the Caribbean. The Disaster Risk Reduction Project that is presently being designed by the CDB and CDEMA will be well placed to review the experiences of R3I.

- iv. It is important to filter the “wish lists” of countries participating in projects like R3I very carefully to ensure that interventions are consistent with capacities, priorities and national needs.
- v. It is important for regional projects to ensure that national expectations are consistent with only what the project can deliver within the stated time and budget allocation. Dissatisfaction usually results when expectations far exceed what the project can deliver and will also impact on the sustainability of the project outputs at the national level.
- vi. Regional projects must be designed to allow for exchanges of experiences, lessons learned and to source and provide technical assistance to other countries and regional projects. In addition, all attempts should be made to ensure that there are synergies between national and regional projects and conflicting overlaps are minimised.
- vii. Regional projects need to ensure that expertise in the management and coordination of complex projects can be retained in the region by ensuring that an external project coordinator is understudied by a regional person.

7.1 Action oriented recommendations

- i. It is recommended that the UNDP discuss with the CARICOM Secretariat, the Caribbean Community Climate Change Centre or another appropriate agency the possibility of storing the valuable technical information , including specifications for equipment, terms of references for contractors, etc. produced during this project so that it can be easily accessed in the Caribbean.
- ii. The UNDP should develop a database of expertise that has been developed in hazard mapping, hazard analysis, early warning systems and search and rescue for use by other countries in the Caribbean and to small island States in general.
- iii. Although the project activities terminate on December 31st 2012, the UNDP Office for Barbados and the OECS must ensure that they carry out their commitment by developing a mechanism that will allow countries to bring forward issues and concerns for resolution on project deliverables that have been received in or after December 2012.
- iv. The UNDP should undertake an outcome evaluation in about another 12 to 18 months to evaluate the impact of the project. Although this evaluation has provided a good rating for the project, concerns still prevail over how countries will continue to finance and maintain the deliverables that have been provided to them.