

Post-disaster Early Recovery in a Caribbean Small Island Developing State

The Case of Hurricane Ivan in Grenada (2004):
Best Practices and Lessons Learned

UNDP Barbados & the Organization of
Eastern Caribbean States (OECS)

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Foreword

UNDP and Risk Management

UNDP Barbados & the OECS

The United Nations Development Program (UNDP) is the UN's global development network, an organization advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. We are on the ground in 166 countries, working with them on their own solutions to global and national development challenges. As they develop local capacity, they draw on the people of UNDP and our wide range of partners. One of the five key practice areas in which the UNDP works is crisis prevention and recovery, including disaster risk reduction.

The integration of risk reduction into human development is essential. In his report on "Strengthening the United Nations: An Agenda for Further Change," UN Secretary General Kofi Annan stated that "we need to incorporate disaster risk management into our poverty reduction and environment strategies". UNDP also collaborates with partners working on climate change to further integrate climate-related risks into development strategies and policies.

Since the formation of the Bureau for Crisis Prevention and Recovery (BCPR) in 2001 by the Executive Board of UNDP, the BCPR has contributed substantially to establishing UNDP as a credible global leader for disaster risk reduction and recovery. The Disaster Risk Reduction Programme has progressively evolved in response to an improved understanding of patterns of disaster risk and its interaction with development pursuits at the national and local levels. Several international research initiatives and the documentation and dissemination of good practices and valuable comparative experiences have contributed to this enhanced understanding and to the evolution of BCPR's programme areas.

BCPR provides UNDP Country Offices with technical assistance and financial support for the design and implementation of disaster reduction strategies and capacity building programmes, ensuring that disaster reduction and sustainable development are understood as mutually supporting goals. The work of the Bureau bridges the humanitarian phase of a post-crisis response and the long-term development phase following recovery. BCPR is also an advocate for crisis sensitivity, working to ensure that all of UNDP's long-term development policies and programs address the risks and opportunities related to disaster reduction and conflict prevention.

A decisive step forward in putting disaster reduction on the international agenda is the Hyogo Framework of Action, approved in January 2005 as an outcome of the World Conference on Disaster Reduction. UNDP supported the drafting of this framework, which entails increasing the resilience of nations and communities in the face of disasters.

From its country office for Barbados and the Organization of Eastern Caribbean States (OECS), UNDP coordinates a number of projects promoting disaster risk reduction, involving innovations such as more resilient housing construction, early warning systems and community-based inter-disciplinary risk management centres. UNDP Barbados also co-hosts the Caribbean Risk Management Initiative (CRMI) as a knowledge network which integrates national and regional expertise and facilitates linkages, and sharing of experiences, among Caribbean countries ■

Rosina Wiltshire
Resident Representative
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Role of the Caribbean Risk Management Initiative (CRMI)

The Caribbean Risk Management Initiative (CRMI) was launched in 2004 by the UNDP's Bureau for Crisis Prevention and Recovery, as a knowledge network designed to build capacity across the Caribbean region for the management of climate-related risk. With the acceleration of global climate change and given the vulnerability of Caribbean countries, the increasing risk experienced by the Caribbean to a range of natural, environmental and technological hazards remains one of the region's most critical unresolved development problems.

The Caribbean is a complex and multi-cultural region, known internationally for the unparalleled beauty of its beaches and for its vibrant and diverse arts and culture. At the same time, its inhabitants in their daily lives often face hardships and limitations. A number of Caribbean countries are Small Island Developing States (SIDS), and so must face the vulnerabilities associated with their small size, which limit their economies and people's ability to earn a living in dignified ways. One harsh aspect of the Caribbean reality is that increasingly, its women, men and children must brace themselves to face the destructive force of hurricanes and floods year after year, while governments and communities struggle to acquire the capacity to adequately mitigate and manage these risks. The national motto from Jamaica captures this dilemma, and the stoicism of Caribbean peoples, "Hardships there are but the land is green and the sun shineth."

As part of the UNDP strategy for knowledge management, the CRMI offers support in meeting this challenge. The CRMI provides a platform for coordinating and sharing knowledge and experiences on risk management throughout the Caribbean, across language groups and cultures. Our premise is that the way forward involves finding and sharing the lessons learned here in the region. The CRMI is also an advocate for the mainstreaming of disaster risk reduction through the facilitation of tools and methodologies, as well as by enabling discussion of the challenges faced in the Caribbean. In that spirit, we hope that this knowledge product, in a modest way, will help to find a sustainable solution ■

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Acronyms and Abbreviations

ARD	Agency for Reconstruction and Development
ART	Agency for Rural Transformation
BCPR	Bureau of Crisis Prevention and Recovery
CDB	Caribbean Development Bank
CO	Country Office
CoRICs	Community Resource and Internet Centres
CRMI	Caribbean Risk Management Initiative
CWIQ	Core Welfare Indicators Questionnaire Survey
DEX	Direct Execution
EC	Eastern Caribbean
ECDG DM	Easter Caribbean Donor Group for Disaster Management
ECLAC	Economic Commission for Latin America and the Caribbean
GDP	Gross Domestic Product
GOG	Government of Grenada
GRENCODA	Grenada Community Development Agency
GRENEC	Grenada Education and Development Programme
GRENSAVE	Grenada Save the Children
GRF	Grenada Relief Fund
GREP	Grenada Rural Enterprise Programme
HFA	Hyogo Framework of Action
IAGO	Interagency Group of Development Organizations
ICT	Information and Communications Technology
NaDMA	National Disaster Management Agency
NEOC	National Emergency Operations Center
NEX	National Execution
NGO	Non-Governmental Organization
OAS	Organization of American States
OCHA	Office for the Coordination of Humanitarian Affairs
OECS	Organization of Eastern Caribbean States
RC	Resident Coordinator
SIDS	Small Island Developing States
UN	United Nations
UNDAC	United Nations Disaster Assessment and Coordination
UNDP	United Nations Development Programme
UNIFEM	United Nations Development Fund for Women

Preface

On September 7th 2004 Hurricane Ivan – a Category 3 hurricane, swept across the Caribbean island of Grenada and its dependencies of Carriacou and Petit Martinique with maximum sustained winds reaching a high of over 115mph, and gusts of over 145mph engulfing the Small Island Developing State of just 333 km². The effects of Hurricane Ivan on Grenada were widespread and pervasive, impacting on every sector of the economy, resulting in loss of property and responsible for thirty-seven (37) deaths. Over 90% of the housing stock of the country was impacted and significant loss of livelihoods took place, particularly in agricultural and rural communities. It is estimated that the hurricane caused damage totaling over 200% of Grenada's GDP .

The people of Grenada were not fully prepared for Hurricane Ivan's impact on the island due in part to the complacency with which they had come to view the likelihood of an impact from a hurricane. The country had not been directly hit by a hurricane in some 49 years, since Hurricane Janet in 1955, and a generation of Grenadians had never in their lifetime experienced a hurricane nor believed that they would ever be affected by one.

Small Island Developing States like Grenada are particularly vulnerable to natural and environmental hazards given their small size since impacts tend to impact on the entire island. Located in geographical regions prone to frequent and intense natural phenomena – such as hurricanes, torrential rain and seismic activity – SIDS are often exposed to disasters which year after year results in the loss of lives, livelihoods and income, eroding the development gains made by these nations. SIDS are also inherently highly constrained in their development options and typically have small national economies which are dependent on a narrow resource base. Their capacity to respond to and recover from natural disasters is very limited.

The impact on Grenada was island-wide and resulted in the almost complete devastation of the island's limited productive capacity and resource base. A 2005 assessment of the impact of Hurricane Ivan on Grenada's progress towards the MDGS, noted that Hurricane Ivan had likely set back the country's development by ten (10) years and that progress made towards the attainment of the MDGs has been lost or greatly reduced since the hurricane.

The connection between natural disasters and development has been clearly established and the need to reduce the impact of disasters on developing economies has emerged as an important development issue. The Hyogo Framework for Action (HFA) calls upon international organizations such as the United Nations to assist developing countries to strengthen national technical and institutional frameworks for risk reduction, and build capacity to improve disaster mitigation, preparedness and early warning, as well as mainstreaming risk reduction into the national development planning process.

The HFA also recognizes that the post-disaster phases of relief, rehabilitation and reconstruction are potential opportunities to build community resilience and reduce vulnerability to future disaster risks. The UNDP – which is mandated by the UN General Assembly to provide development assistance to countries to reduce disaster risks through mitigation, prevention and preparedness – actively seeks to utilize the post-disaster window of opportunity to reduce risks through its input into the early recovery process following a disaster event.

Early recovery, usually delimited by the period immediately following the disaster up to 18 – 24 months after, should commence even while humanitarian relief is still being undertaken and should bridge the gap which often exists between relief and recovery. During the early recovery period the focus shifts from relief to stabilizing the economic, governance, human security and social equity situation of the country. Technical support provided as early as possible in the recovery stage, which factors in risk management and risk reduction from the beginning, avoids the reconstruction of risks as the country recovers from the disaster.

As defined by the Inter-Agency Standing Committee Cluster Working Group on Early Recovery the aim of activities during the early recovery phase is to :

- Augment on-going emergency operations by fostering self-reliance among the affected population and meet critical needs to rebuild livelihoods
- Promote spontaneous recovery initiatives by the affected population and mitigate the rebuilding of risk;
- Establish the foundations for longer-term recovery

The UNDP was assigned lead responsibility for early recovery in humanitarian response under the Cluster Approach which was established in 2005 to strengthen and coordinate responses to humanitarian emergencies. To provide direction to the post-disaster recovery assistance given to countries affected by disaster, the UNDP's Bureau of Crisis Prevention and Recovery (BCPR) has developed key principles and approaches to guide the Agency's interventions in this regard.

The principles are aimed at facilitating the return to normalcy and commencement of reconstruction while minimizing long-term risks and the reconstruction of underlying causes which may have contributed to the disaster in the first place. They were developed based on experiences and lessons learned by the organization over the past five-years in various recovery operations throughout the world, including those in Grenada in 2004. The principles are generic and over-arching; however specific assistance is based on the needs of individual countries or warranted by the particular disaster.

Box 1. Guiding Principles for Post-Disaster Recovery

1. Focus on the most vulnerable
2. Improve and maintain coordination
3. Ensure transparency and accountability
4. Promote participation and decentralization in recovery planning and programming
5. Enhance safety standards
6. Improve the living conditions of the affected communities and sectors
7. Build local and national capacities for increased resilience, risk management and sustainable development
8. Take advantage of ongoing initiatives
9. Utilize demonstrative effects
10. Monitor, evaluate and learn from experience
11. Mainstream disaster risk reduction in the recovery/development process

This document presents a case study of UNDP post-disaster assistance to Grenada in 2004 vis-à-vis early recovery and the best practices and lessons learned arising out of the organization's interventions there. This response took place prior to the establishment of the Cluster Approach in 2005; however the experience demonstrates why UNDP is well-positioned to assume lead responsibility for early recovery. Additionally the Grenada experience contributed to the development of a framework for early recovery and the BCPR early recovery guidelines .

While other UN Agencies and development partners would have implemented projects in Grenada targeting specific sectors or groups this case study will focus specifically on UNDP's activities and how it spearheaded the recovery process. The study outlines the contributions and support made to early recovery in Grenada within the first eighteen (18) months following the disaster to help the country to recover and to promote long-term development ■

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The Impact of Hurricane Ivan on Grenada

Hurricane Ivan caused widespread destruction in Grenada, with the brunt of the impact being felt on four of Grenada's seven parishes – namely St. George where the capital city St. George's is located, St. David, St. Andrew and St. John. The passage of Hurricane Emily in July 2005, a mere ten months after Hurricane Ivan, brought further damage to the tri-island state, with the greatest impact being visited upon the islands of Carriacou and Petite Martinique, and the mainland parishes of St. Patrick and St. Andrew. Ironically, Hurricane Emily impacted most upon those areas which received the least damage from Hurricane Ivan and negatively affecting the country's ability to recover and re-build.



Grenada

Table 1: Summary of direct and indirect damages in relation to GDP (as a %)

Sector	Direct Damage	Indirect Damage	Total
Agriculture	5	5	10
Manufacturing	2		2
Wholesale & retail		1	1
Tourism	31	10	41
Electricity	7	2	9
Water/sewage	1		1
Telecom	8	6	14
Cable	1		1
Education	20		20
Transport	1		1
Housing	137	1	138
Health	1		1
Total	213	26	239

Housing

Post-disaster damage assessments estimate the damage to Grenada's housing stock at 89%, with approximately 30% of the nation's housing being completely destroyed and requiring replacement. Significant damage was also caused to government and commercial buildings; hospitals and health-related facilities; damage to roads and bridges were caused by the accompanying storm surge as a result of the high winds.



Damage to houses

Utilities

Telecommunication and electricity services were disrupted due to downed utility poles and cellular antennae. An estimated 80% of the national electricity distribution system was damaged however the main generating system remained intact apart for minor damage. Potable water was affected by siltation and debris blockage in reservoirs and damage to distribution lines.

Education

High winds associated with the hurricane caused extensive damage to the roofs and structures of primary and secondary schools and other tertiary level institutions on the island; books, equipment and school furnishings were also lost due to water damage and exposure to the elements. Estimated costs are Eastern Caribbean Dollars (EC\$) 19

Table 2: Summary of Effects on the Education Sector and Reconstruction Costs (EC\$)

Direct effects	\$ 194,560,884	Reconstruction costs (direct effects)	\$ 214,016,972
Indirect effects	\$ 1,260,000	Reconstruction costs (indirect effects)	\$ 1,386,000
Total Damage	\$ 195,820,884	Total reconstruction costs	\$ 215,402,972

School-aged children in Grenada were displaced for several months and make-shift schools had to be set up in tents to facilitate the continuation of classes and to return some sense of normalcy back into the lives of these children. Some students had to be temporarily placed in schools in other countries in the region until the education system in Grenada was able to recover. Ancillary facilities such as community centres and sporting facilities also felt the devastating effect of Hurricane Ivan.

Tourism

The tourism sector, one of the main contributors of foreign exchange to the Grenadian economy, suffered major direct and indirect losses as a result of the hurricane, direct losses to tourist accommodation alone amounted to EC\$167 Million with close to 90% of all tourist accommodation being affected by the hurricane. Facilities such as historical sites, mariners, and other tourism infrastructure were also totally destroyed or damaged bringing the total impact to the tourism sector to over EC\$264 Million .



Damage to yachts

Agriculture

Agricultural production in Grenada contributes to the country’s economy through foreign exchange earnings, providing employment and contributing to food security. The main crops cultivated are spices, cocoa, bananas, and the small-scale production of other minor fruit and vegetable crops. Also known as the ‘Spice Isle’, Grenada is one of the foremost suppliers of nutmeg in the world and also produces cinnamon, ginger and mace.

Losses due to the hurricane were experienced throughout the agriculture sector with extensive damages to crops, livestock, fisheries, equipment, agricultural infrastructure, as well as the resultant loss of livelihood by those employed in the sector. Total damage to the agriculture sector has been placed at well over EC\$100 Million.

Table 3: Summary of Damage to Agriculture Sector (EC\$)

	Direct Damage	Indirect Damage	Total
Crops	\$ 12,526,027	\$ 32,472,446	\$ 44,998,473
Livestock	\$ 6,621,180	\$ 7,479,211	\$ 14,100,391
Fisheries	\$ 3,176,000	\$ 2,556,500	\$ 5,732,500
Propagation units and private nurseries	\$ 5,958,405	\$ 595,841	\$ 6,554,246
Irrigation and drainage	\$ 386,319	\$ 77,302	\$ 463,621
Farm roads	\$ 26,030,800	\$ 2,602,810	\$ 28,633,610
Total Damage to the sector			\$100,482,841

The banana industry was completely demolished with 100% of cultivated bananas destroyed to the sum of over EC\$1 Million. The majority of cocoa plantations were completely destroyed and the industry experienced losses to plants and infrastructure such as propagation, storage and buying facilities. The nutmeg industry in Grenada was almost completely decimated by Hurricane Ivan, which uprooted nutmeg trees, snapped branches, and totally defoliated many trees. The damage to the nutmeg industry is particularly debilitating to the economy since these trees take 7 – 10 years to produce its first fruit and over twenty (20) years for the trees to fully mature and reach their full production capacity. The industry could therefore take this amount of time before it is totally recovered.

Governance Systems

Grenada's vulnerability as a SIDS was clearly demonstrated by the nation-wide scale of the disaster which not only caused extensive physical damage, but also debilitated governance structures and systems on the island. The Government of Grenada (GoG) was rendered virtually crippled in the immediate aftermath of the disaster given the scale of damage to key administrative infrastructure and also due to the trauma experienced by government personnel, who had themselves been victims of the impact of the hurricane.

Immediate focus and concern after the "all-clear", was therefore the safe-guard of families and homes. Anecdotal accounts out of Grenada tell of the feelings of personal conflict experienced by professionals such as police officers, nurses and other government officers to report to duty while their families grappled with significant losses and their homes desperately needed repairing and safe-guarding. So ubiquitous was the impact of the hurricane that even the residences of the country's Prime Minister and Governor General sustained major damages.

Given the extent of the impact on Grenada and the country's inability to cope with this disaster on its own, numerous international & regional agencies, and governments stepped up to provide humanitarian aid, and financial and technical support towards recovery efforts. Amongst the contributing agencies the UNDP, through its Sub-regional office for Barbados and the Eastern Caribbean, provided critical input into relief and response activities immediately after the event and in recovery and rehabilitation efforts ■

UNDP Interventions in Grenada

The Response

At the time of Hurricane Ivan there were no UN agencies resident in Grenada. For the most part, support to Grenada fell under the purview of agencies based in Barbados which served that country, as well as the nine countries of the Organization of Eastern Caribbean States (OECS) of which Grenada was a member. The immediate coordination of relief was therefore through these agencies based in Barbados; which upon the approach of the hurricane, had already commenced planning and preparations in case of an impact on Barbados or any of the OECS countries.

The Eastern Caribbean Donor Group for Disaster Management (ECDG DM), chaired by the UN Resident Coordinator (RC) – supported by the UNDP, was convened to coordinate the response of the major regional and international donors, and partners in the region. Contingency plans and measures were put in place and agencies were on standby to respond as needed. Following the all-clear, emergency relief supplies in the form of food, medical supplies, and materials for temporary shelters were quickly dispatched to Grenada to meet the basic needs of the affected population.

The UN RC was among the first international representatives to visit Grenada and was in country within days of the event to lend support to the GoG and to get a preliminary conceptualization of the level of assistance which would be required. Meetings with the Prime Minister and other senior officials during this time laid the foundation for the UN's lead role in the relief and recovery efforts. It was noted that significant support would be needed to support the government, given the sheer scale of the impact as well as the limited capacity to respond to both humanitarian concerns as well as the prerequisites for an effective early recovery process.

Deployment of BCPR and UNDAC Teams

Based on the extent of the need the UN RC requested the deployment of the United Nations Disaster Assessment and Coordination (UNDAC) Team to coordinate humanitarian aid and damage

assessments, and to provide communication support in Grenada. Initially based at the National Emergency Operations Center (NEOC), the UNDAC team brought in communications equipment (including VHF and satellite) which supplemented the limited communication capability of the NEOC and improved external communication with agencies in Barbados and elsewhere.

Providing support to the RC were representatives from the Bureau of Crisis Prevention and Recovery (BCPR) who arrived in the region within days of the impact on Grenada. The BCPR assisted in the development of Terms of Reference for the UNDAC team and facilitated its entry into Grenada. The BCPR also provided input for the preliminary needs assessment which was conducted to determine the emergency requirements and to form the basis of the Flash Appeal. Experts in the areas of environmental and public health, hospital infrastructure, children's needs and gender issues from UNDP and other UN agencies in the region also made up the assessment teams and provided technical input into the needs assessment for the development of the Flash Appeal.

Coordination of Humanitarian Relief

The UNDAC team was instrumental in supporting the coordination of international relief coming into the island. They provided substantial assistance to the national response mechanism which was overwhelmed by the scale of the disaster, and which did not have the capacity to effectively manage the influx of relief supplies coming into the country. Through UNDAC support vehicles were hired to transport and distribute relief supplies. Food-for-work programmes were implemented to ensure that essential personnel were available to work in the relief effort, while at the same time provided assistance to those in need.



Relief supplies

Daily meetings convened by the UNDAC brought together all of the international agencies providing humanitarian relief in Grenada to give an update on their activities and to coordinate relief. These meetings prevented duplication of efforts and helped to identify gaps and needs which were not being met and specific communities which required assistance. Agencies with the resources and capacity were then able to fill these gaps.

Financial Aid

The UN System and the GoG launched a Flash Appeal to obtain funding for relief and recovery initiatives; the findings and briefings from the UNDAC team and other experts including those from UNDP Barbados CO informed this process significantly. Through the contributions received, the UN System and other development partners were able to identify and implement several projects aimed at restoring livelihoods, housing rehabilitation, and rehabilitation work the agriculture and tourism sectors.

A Donor Conference facilitated by the UNDP in New York was successful in raising funds to meet the needs for humanitarian relief and long-term recovery projects. Through the Conference the GoG was also able to receive bi-lateral assistance for budgetary support. With the damage to its productive sectors Grenada could generate only limited income and foreign exchange and therefore required funding assistance to keep the economy and government functional. Direct budgetary support received by the government was used to pay public servants and cover recurring government expenditure.

Damage and Vulnerability Assessments

The UNDP Barbados and the OECS supported a socio-economic impact assessment of the disaster which was conducted by the UN ECLAC and the OECS Secretariat utilizing the ECLAC methodology. The OECS/UNECLAC assessment examined Grenada's socio-economic situation pre and post-disaster, quantified direct and indirect damages to the various sectors and gave projections on the requirements for recovery and reconstruction. This assessment is the most comprehensive and main source of information on the impact of Hurricane Ivan in Grenada and has informed the development of national reconstruction programmes and donor support to the island.



Demolished house

A separate assessment was also undertaken to specifically assess the damage to housing on the island. The housing damage assessment looked at the non-structural and structural damage to the housing stock (houses of less than 2000 square feet) and the causes of failure of the housing elements damaged. The team of six (6) experts from the region hired as consultants by the UNDP to conduct the assessment made specific recommendations on how the design of these houses could be improved to reduce their vulnerability to natural hazards.

UNDP Liaison Office

In order to facilitate timely implementation of early recovery activities the UNDP recognized that it needed a presence in-country to oversee and manage the recovery process. Upon the departure of the UNDAC team the UNDP purchased their communication and office equipment, and used these to establish a UNDP Liaison Office in Grenada. The office was staffed with technical and support staff including a Programme Coordinator, National and International Recovery Advisors, and a Communications Specialist. Emergency funding received from the Regional Bureau for Latin America and the Caribbean (RBLAC) facilitated coordination and supported UNDP's presence in Grenada.

One of the un-intended advantages of the establishment of the liaison office in its early days was that the office served not only UNDP staff, but also became a hub for other UN and international organizations in Grenada since few, if any, had established official offices in the country. The UNDP office was outfitted with office and communications equipment – including internet access, which few other agencies had access to on their own. The ‘LOG’ as the office became known, therefore served as a communication hub and provided critical connectivity services for a number of agencies. Arising out of this was a closer working relationship between the UNDP and the other agencies; and an environment of collaboration, mutual support, and information sharing which affirmed a role for UNDP as the lead coordination agency.

The Liaison Office was supported in its activities by the UNDP CO in Barbados which was responsible for managing financial and administrative issues in line with established UNDP procedures. Following the initial emergency phase additional technical support was available to the CO; however, upon their departure implementation of recovery activities fell to the regular contingent of staff. While the sub-office improved the UNDP’s presence and effectiveness in Grenada, increased administrative and technical support was still required from the CO, in Barbados, stretching the already limited human resources at the CO. In spite of these challenges the staff was able to provide the necessary support to recovery activities in Grenada and to the office there.

Another challenge experienced by staff at both offices was the need to follow administrative and financial procedures which did not always allow for the level of flexibility required to deal with the post-disaster situation. These procedures at times delayed access to funds and slowed implementation.

Coordination

The UNDP Liaison Office assumed responsibility for coordinating relief and recovery and continued to convene weekly meetings with donors, aid agencies and government to share information and coordinate efforts. The UNDP Liaison Office played a key role in sharing information with partners and government relating to ongoing relief efforts and served as a repository of information on the broad range of ongoing initiatives in order to enhance coordination. Key in its work was also enhancing coordination in the areas in which UNDP was specifically involved e.g. housing and livelihood projects. Donor coordination remained a core role of UNDP throughout the recovery and rehabilitation phases.

Even though the government of an affected country usually assumes responsibility for the overall coordination of humanitarian agencies entering the country, the GoG did not initially have the capacity to undertake this role due to the extent of the devastation on Grenada and the impact to its governance systems. The UNDP therefore continued to support the government in this way for some months following the disaster until national systems were re-established and functional. This role was eventually taken over by the Agency for Reconstruction and Development (ARD) when it had settled into its responsibilities which included the coordination of donor inputs to the reconstruction efforts.

Support to the Agency for Reconstruction and Development (ARD)

The UNDP provided financial and technical input to the establishment of the ARD which was established with responsibility for the overall recovery and reconstruction effort in Grenada. The ARD’s mandate is to provide technical assistance to government agencies and ministries; facilitate coordination and information exchange among agencies (national and international) to avoid duplication and to increase effectiveness; and to ensure that reconstruction is accomplished in a manner which minimizes the country’s vulnerability to hazards.



BUILD BACK BETTER
ARD logo

Recognizing the GoG's intention to establish the ARD, the UNDP offered its advice and support. The UNDP noted the importance of establishing an agency which would exist within the current civil-service structure and stressed the necessity for clearly defined roles and relationships between the ARD and other government agencies. The need to adhere to general public services structures to avoid the creation of significant disequilibrium in the labour market; and the need for an effective exit strategy for the closing out of the Agency were other areas highlighted by the UNDP for careful consideration. Direct financial support to the ARD included funding of the positions of International Recovery Advisor and Director– Social Recovery. Also supported were several short-term technical experts to assist the ARD in specific areas.

Through the UNDP Liaison Office, which was housed in the same building as the ARD, a direct and on-going relationship was developed between the two agencies. Staff at both offices report that they were able to communicate with each other on an informal and formal basis to exchange ideas, advice and information. The staff of the Liaison Office was able to offer technical advice and support to the ARD and was a valuable resource in helping the newly established agency to focus on the work at hand.

Capacity Building for Government Officers

Key government institutions and public officers central to the recovery and reconstruction of Grenada benefited from capacity building support provided by the UNDP through the provision of computer equipment, Geographic Information Systems (GIS) software, skills training and facilitation of participation in international seminars and workshops in poverty analysis, statistics, trade and business development. High resolution Satellite Imagery of Grenada, Carriacou and Petit Martinique as well as several computers were provided to the government for use in the development planning process. Training was provided on the application of GIS and Remote Sensing for development planning for core sectors such as tourism, agriculture, environment and housing. A cadre of officers from the Ministry of Finance and Planning, NaDMA, the Land Use Division, the Lands and Surveys Department and other agencies represented on the Human Settlements Task Force participated in the ARD/UNDP supported training.

The OECS Secretariat and the UNECLAC Sub-regional Headquarters for the Caribbean partnered to deliver training in sector and vulnerability assessment and disaster risk reduction to build local capacity in these areas given the gap in these skills identified after Hurricane Ivan. Some of the persons trained were subsequently able to co-facilitate training in other OECS territories. Following the impact of Hurricane Emily in Grenada in 2005, the OECS led damage and loss assessment team included some of these trainees.

Mainstreaming Risk Reduction in Development Planning

One of the aims of recovery programmes is to reduce the risks which contributed to the disaster in the first instance and to mainstream disaster risk reduction into the development/redevelopment process. Recovery programmes, must of necessity, incorporate information on the underlying causes of damages and the vulnerability factors of affected populations to guard against recreating risk conditions or creating new ones.

Technical support was provided to the Government of Grenada for the formulation of a National Reconstruction Plan. The Plan sets out the strategic plan and framework for – recovery in the economic and social sectors; the reconstruction of infrastructure and housing; poverty reduction; environmental management; and risk reduction. Risk reduction has been incorporated into the Plan for all sectors with the goal of reducing the future vulnerability of the country and its people to hazards of all types.

Housing Rehabilitation



Construction of low income house

The International Recovery Advisor, as a member of the Emergency Housing Committee, took the lead in updating and re-drafting an Emergency Housing Policy to guide the implementation of an emergency housing programme to reconstruct housing destroyed or severely damaged by the hurricane. Given the extensive damage to the housing sector great attention was placed on reducing the risks which led to the housing failure. The policy included criteria for the reconstruction of houses following safety standards and hurricane-resistant construction methodologies as well as an equitable and transparent methodology for beneficiary selection.

The Emergency Housing Committee and the Ministry of Housing undertook a public education and awareness campaign to inform the general public of hurricane-resistant building techniques for small wooden houses. A scaled model house with hurricane-resistant features was constructed and displayed in various villages throughout Grenada and in Carriacou in a series of roving community outreach programmes. UNDP also assisted in the production of radio programmes promoting and providing advice on appropriate construction technologies were used to educate and inform the public.

Special attention has been placed on reducing the suffering and vulnerability of destitute families though the provision of secure housing to families in a low-income community on the outskirts of the capital city of St. George's. The houses were built as models of low-income housing which included hazard mitigation features in their design to withstand hurricanes and earthquakes.

Capacity Building in the Construction Sector

Several initiatives focusing on the construction sector have been carried out based on the diagnostic assessment of the damage to the housing sector and the recommendations made by the team of experts to address the issues identified. Targeted at various levels of the construction industry the objective of these initiatives were to reduce risk by promoting safer building practices, especially in the housing sector.

“Safer building” training

Artisans and builders (carpenters and masons) were trained to assess the strength of construction materials and the adequacy of construction methods through workshops



Female trainees in construction skill training course

which provided trainees with information on the standard of materials and the appropriate techniques/methodologies required for safer building. Topics covered during the training include: ring beam, roofing, walls, floors and foundation techniques.

Other construction professionals including design engineers were also exposed to safer building methodologies through a course implemented by the ARD with support from the UNDP and the Organization of American States (OAS). This course, delivered in two tranches, provided training in effective hazard mitigation design practices.



Skills training

Additional capacity was built in the construction sector through the training of unemployed young men and women in carpentry, plumbing and masonry. Implemented by the Agency for Rural Transformation (ART), the training built upon previous construction skill-training offered by UNIFEM to young women to improve their employment and livelihood prospects. Specific attention was placed on women in this area since the construction sector was on the only booming industry following Hurricane Ivan and many women had lost their jobs in the tourism and other sectors. Included in the training curriculum were classes aimed at improving the numeracy and literacy skills of the participants to further build their capacity and effectiveness on the job.

Certified by the local Community College, grandaunts of the programme are qualified to practice their trade in Grenada and throughout the region. Some of the graduates of the construction training programme were hired to work on several UNDP initiatives to construct low-income housing and repair/refurbish community centres; while others have received employment with the Housing Authority or hired by private contractors.

Rebuilding Lives and Livelihoods

Livelihood rehabilitation is one of the most important components of the early recovery process as it contributes to the reduction of vulnerabilities created or exacerbated by the event; and assists persons to build their capacities and abilities to recover and or mitigate the impacts of the disaster. Technical experts resident at the CO went to Grenada soon after the disaster to identify livelihood and recovery initiatives. In consultation with government and civil society they were able to develop project proposals, and sourced funding for these activities to commence implementation within just three (3) months of the disaster.

Grenada's two main income earners – tourism and agriculture – were hardest hit by the disaster resulting in millions of dollars in damages and in the loss of income and employment for a significant portion of the society; the most severely affected being the rural poor and female household heads. Women, in particular female household heads, were specifically targeted and included in livelihood initiatives implemented in both traditional and non-traditional employment sectors.



Clearing of debris

Boat building

Agricultural Rehabilitation

In order to help farmers salvage their crops and return to cultivation and agricultural production as quickly as possible they were given assistance to clear debris, felled trees and crops, and to prepare the land for replanting. The early clearing of debris from nutmeg trees helped to save some of these trees from further damage so that they remained productive and farmers did not lose their entire field. Without this measure more of the nutmeg trees would have been lost to the hurricane.

Labourers were assigned to assist farmers in their clearing and recovery efforts through a 'cash for work' programme which, while providing assistance to the farmers, provided persons with a source of income to assist them in regaining financial stability. Farmers were also given seedlings such as plantain and banana, and a variety of seeds (e.g. cabbage, corn, beans and lettuce) to re-establish their crops. The Grenada Community Development Agency (GRENCODA) took the lead in this activity on behalf of the UNDP.

Female household heads in rural communities benefited from a programme to establish poultry rearing as a small business, and were provided with start up material such as chicks, feed and chicken coups specially designed to be better able to resist high winds and flooding. This initiative has created income for those who participated – the women were able to find a market within their communities for the eggs and the mature chickens.

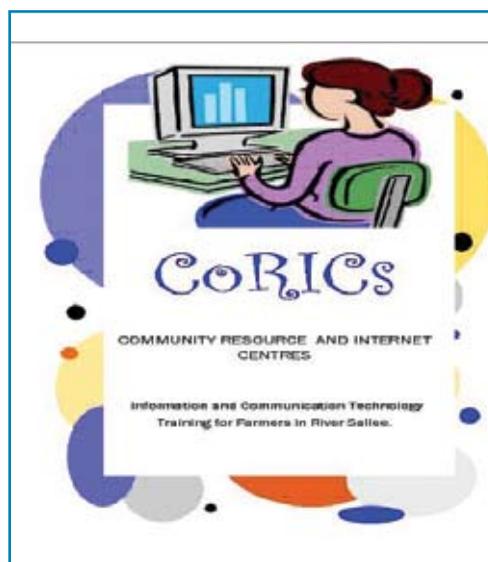
Community Tourism

Early recovery in the tourism sector has been addressed through a Community Tourism Development initiative to provide training in small business development, handicraft making, boat building, and community tour guiding. Training in boat building were focused in the Grenadines islands since these were skills particular to those islands.

Tourism infrastructure such as nature trails and information signage were also re-developed and marketing assistance provided for the development of community tourism initiatives. In collaboration with Grenada Save the Children (GRENSAVE) the popular Grand Anse beach was cleared of debris and rubble, and trees planted along the shoreline. Rehabilitation of the beach has seen the return of both the public and tourists to the area.

Computer-skills Development

Community Resource and Internet Centres (CoRICs) have been established in rural communities to provide access to internet and computer facilities, to enhance access to information, and to increase knowledge and skills in the use on information and communications technologies. Specific target groups in the recovery phase included farmers, single mothers and other young adults. Though this access and the educational and training opportunities available, sustainable livelihood opportunities of these target groups could be expanded and thereby contribute to the eradication of poverty in rural Grenada.



CoRICs Icon

Facilitation of Civil Society Participation

The utilization of participatory processes for development planning and decision making was inconsistently practiced in Grenada. At the recommendation of the UNDP participatory approaches were used to include civil society in the recovery planning and decision-making process to ensure that the views and interest of all segments of society were given due consideration in the recovery process.

National Consultation on Recovery

The ARD and the UNDP convened a National Consultation on sustainable recovery for Grenada

to identify the challenges facing the country and to get general consensus from stakeholders on the recovery plan and its implementation. Representatives from the private sector, government ministries, trade unions, NGOs, community development agencies, regional universities, religious organizations, and the media among others participated in the roundtable discussions. Outcomes of the consultation include the identification of priority areas for action (housing, tourism infrastructure, utilities, roads and business reactivation); guiding principles for the recovery process (transparency and equity) and the need for risk reduction as part of the recovery process.

Based on recommendations from a UNDP-retained Participatory Planning Consultant the ARD has adopted participatory concepts in the development of the Strategic Plan for reconstruction and for local development plans for various communities.

Involvement of NGOs

UNDP has formed strong relationships with NGOs in Grenada and included several in the implementation of recovery projects, facilitating their involvement in the recovery process. These agencies and projects include:

- Grenada Education and Development Programme (GRENED) provided skills training in areas such as business development.
- GRENCODA conducted Community Tourism Development skills training.
- ART undertook construction skills training, and the building and repair of homes targeting both women and men.
- GRENSAVE and the Inter-Agency Group of Development Organizations (IAGDO) assisted in the expansion of CoRICs in Grenada as well as extension to ICT for farmers.
- Grenada Relief Fund (GRF) provided additional support for the expansion of CoRICs to an additional community. This collaborative effort also included the Grenada Rural Enterprise Programme (GREP).

Monitoring Human Development Gains

The monitoring and evaluation framework for the post-disaster recovery in Grenada was enhanced through the implementation of a Core Welfare Indicators Questionnaire Survey (CWIQ) funded by UNDP, the Caribbean Development Bank (CDB) and UNIFEM. The CWIQ of 2005 collected valuable information on the state of social and other services in the post-Hurricane Ivan context and to assist in the identification of those most in need. Post Hurricane Ivan, poverty and unemployment levels were very high and there was an increased burden on social services. The CWIQ also provided an opportunity for critical gender analysis to inform recovery programmes and constituencies. The results of the CWIQ contributed to a baseline against which development advancements made during the recovery and reconstruction process can be monitored and measured. The continued use of this tool will assist in tracking and monitoring re-development efforts ■

Best Practices

- **UNDP is well placed to be the lead agency for early recovery given its overall role as an agency with a broad development mandate, and its linkages and relationships with governments.** The UNDP has attained a reputation for integrity in the region and has the respect of government leaders. This has fostered a sense of trust and confidence in the UNDP to provide assistance to Government and to act on its behalf on some matters given the devastation to governance structures.
- **The early entry of UNDP into Grenada and the immediacy of its actions helped to spur others into action.** The impact of the hurricane had a traumatic effect on the population who were in a state of shock from having lost their homes, possessions and means of livelihood following the event. Coming from outside of the country the UNDP team was able to commence the organization of the recovery process even while others nationally were still reeling from the shock of the disaster.
- **Rapid deployment of technical experts supported early recovery assessment and planning.** Experts from the BCPR along with the UNDAC Team were integral in the preparation of the Flash Appeal and Early Recovery Framework which formed the basis for donor and international assistance. The UNDP CO leveraged its technical expertise to jump-start the recovery process by developing short-term recovery initiatives to meet pressing needs.
- **UNDP's coordination role was particularly relevant given the impact of the disaster on governance structures on the island which limited government's capacity to assume this role itself for some time.** UNDP supported the GoG in this regard until governance systems were re-established. Although the UNDP led in the short-term, it did not usurp the government but worked in partnership with it; decision-making authority remained with the GoG. This enabled the government to focus on meeting pressing national needs and on strategic planning for recovery.
- **Collaboration with partners, donors and government was necessary to avoid duplication of efforts and to ensure that recovery was being undertaken within one strategic framework.** Due to its on-going working relationship with these partners and donors, especially through the ECDG DM, UNDP's lead role in coordination was accepted and supported by the various agencies. Regional cooperation mechanisms in place prior to the disaster event were useful in determining roles and identifying resources, and allowed for a swift response to the disaster.
- **The on-site presence of UNDP enhanced relationships with government, civil society and other development partners.** Establishment of the UNDP Liaison Office provided crucial support to on-the-ground coordination and facilitated the implementation of recovery projects. The accessibility of the organization's technical staff to government agencies and NGOs provided additional technical support and guidance for the recovery process.
- **Flexibility in the modality utilized for implementation is required in disaster circumstances.** A combination of DEX and NEX modalities is useful during the transition period, and helps to increase responsibilities of national authorities and build their capacity for the rehabilitation and recovery phases. Even though NEX is the generally preferred modality, the specific circumstances arising out of the disaster required the use of the most efficient modality given the circumstances

- **The Direct Execution (DEX) Modality was employed in Grenada to facilitate project implementation given the limited time frame for implementing and that the overwhelmed national systems did not have the necessary capacity for National Execution (NEX).** The local team was enabled to make decisions and act on them rapidly to bureaucratic procedures and systems.
- **Civil society has a vital role to play in the national development process and must work with government and other partners in the reconstruction and recovery process. The participation of civil society in initiatives should be encouraged and facilitated.** Through the DEX modality UNDP was able to directly include NGOs in the early recovery process. Execution of projects by NGOs resident in Grenada and with a track record for working with communities was effective in achieving the objectives of projects assigned to them and gave UNDP access to local knowledge and skills.
- **Partnerships with civil society organizations have built their skills base and significantly improved their capacity to manage and implement larger projects.** Some of the NGOs report receiving funding from other organizations to implement projects based on the results they achieved under the UNDP initiatives. Follow-up projects with the UNDP have also materialized.
- **The UNDP has served as an impartial partner and mediating force between government and civil society and was able to broker for wider involvement of non-government entities in the recovery process.** The involvement of civil society in the early recovery process has contributed to greater transparency and trust at all levels than would have been achieved by working through government alone. The consultative approach towards the formulation of the recovery plan has promoted buy-in and support ■

Lessons Learned

- **Surge Capacity at UNDP Country Offices is critical for effectively managing post-disaster relief and recovery.** The requirements of implementing recovery activities Grenada stretched staff and systems at the UNDP CO in Barbados. Support to COs in the form of resources for additional staff or the secondment of other UNDP/UN personnel is necessary to supplement the office's capacity to manage the increased demands which arise in an emergency situation. The projects required a high amount of financial and administrative support; however no additional human resources were assigned to manage these aspects at the country office.
- **Administrative and financial systems must facilitate the expeditious deployment of resources for relief and recovery.** Rules and procedures for emergency operations should be established in advance to enable COs to respond quickly to arising needs and allow the office to provide the level of support required (e.g. establishment of offices, recruitment of additional staff, purchase of equipment and materials etc.).
- **Multi-country UNDP offices should include in their Operations Plans procedural guidelines for the establishment of on-site satellite offices.** Should the need arise, this would facilitate the speedy establishment and staffing of these sub-offices for efficient and effective coordination and management of recovery.
- **Careful consideration needs to be given to identifying the appropriate level of staffing needed at satellite offices so that they are not overwhelmed.** Additionally, on-site support should be maintained for a sufficient enough period of time to ensure that

initiatives receive the full level of support required and that local systems are fully functional and capable of managing on their own.

- **Projects assigned to NGOs should be congruent with the capacity of the organization and provision made to assist in filling personnel and skill gaps where these may exist.** Numerous international organizations implemented initiatives through NGOs and CBOs in Grenada which had limited capacity vis-à-vis the number of staff and the technical skills to carry-out the various projects. Even though financial allotments were made for administrative costs these organizations did not always receive sufficient financial support for hiring additional staff to support implementation.
- **Capacity building for NGOs and other civil society organizations is necessary to ensure that these organizations are capable of fully participating in the development process.** Working with these organizations outside of a disaster event as long-term partners would assist in supporting the long-term viability of these organizations ■

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