REPORT
ON
STRENGTHENING PUBLIC INVESTMENT
IN
DISASTER RISK REDUCTION
&
POST DISASTER NEEDS ASSESSMENT
17-19th JULY 2013

RADISSON AQUATICA RESORT

BAY STREET, ST. MICHAEL
BARBADOS
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<tr>
<td>ACAPS</td>
<td>The Assessment Capacities Project</td>
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<td>AAL</td>
<td>Annual Average Loss</td>
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<td>BCPR</td>
<td>Bureau for Crisis Prevention &amp; Recovery</td>
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<td>CDB</td>
<td>Caribbean Development Bank</td>
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<td>CDM</td>
<td>Comprehensive Disaster Management</td>
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<td>CDEMA</td>
<td>The Caribbean Disaster Emergency Management Agency</td>
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<td>CIMH</td>
<td>Caribbean Institute for Meteorology &amp; Hydrology</td>
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<td>CFTC</td>
<td>Commonwealth Fund for Technical Co-operation</td>
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<td>CRMI</td>
<td>Caribbean Risk Management Initiative</td>
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<td>DANA</td>
<td>Damage and Needs Assessment</td>
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<td>DEVCO</td>
<td>Development and Cooperation-EUROPEAID</td>
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<td>DFID</td>
<td>Department for International Development</td>
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<td>DRM</td>
<td>Disaster Recovery Management</td>
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<td>DRR</td>
<td>Disaster Risk Reduction</td>
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<td>EM-DAT</td>
<td>Emergency Management Database</td>
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<td>EU</td>
<td>European Union</td>
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<td>GAR</td>
<td>Global Assessment Report</td>
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<td>GFDRR</td>
<td>Global Fund for Disaster Risk Reduction</td>
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<td>HDI</td>
<td>Human Development Index</td>
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<td>HFA</td>
<td>Hyogo Framework for Action</td>
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<td>HRNA</td>
<td>Human Recovery Needs Assessment</td>
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<td>IADB</td>
<td>Inter-American Development Bank</td>
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<td>IICA</td>
<td>Inter-American Institute for Cooperation on Agriculture</td>
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<td>Acronym</td>
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<tr>
<td>MCRAM</td>
<td>Multi Cluster Rapid Assessment Mechanism</td>
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<td>MIRA</td>
<td>Multi Cluster/ Sector Initial Rapid Assessment</td>
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<td>MDG</td>
<td>Millennium Development Goal</td>
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<td>NDO</td>
<td>National Disaster Office</td>
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<td>NGO</td>
<td>Non Governmental Organization</td>
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<td>OECS</td>
<td>Organization of Eastern Caribbean States</td>
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<td>PDNA</td>
<td>Post Disaster Needs Assessment</td>
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<td>PML</td>
<td>Probable Maximum Loss</td>
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<td>SOPAC</td>
<td>South Pacific Applied Geoscience Commission</td>
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<td>SIDS</td>
<td>Small Island Developing States</td>
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<td>TCI</td>
<td>Turks and Caicos Islands</td>
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<td>TOR</td>
<td>Terms of Reference</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNDAF</td>
<td>United Nations Assistance Development Framework</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNECLAC</td>
<td>United Nations Economic Commission for Latin America</td>
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<td>UNISDR</td>
<td>United Nations International Strategy for Disaster Reduction</td>
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<td>WB</td>
<td>World Bank</td>
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1.0 Executive Summary

The United Nations Development Programme Barbados and the OECS in collaboration with the United Nations International Strategy for Disaster Reduction (UNISDR), the Caribbean Disaster Emergency Management Organization (CDEMA), Caribbean Risk Management Initiative (CRMI) and the World Bank convened a workshop on “Strengthening Public Investment in Disaster Risk Reduction and Post Disaster Needs Assessment from July 17-19th 2013 at the Radisson Aquatica Resort, Bay Street Barbados.

The workshop was convened with fifty-three regional participants including national stakeholders and agency representatives from the English-speaking Caribbean, (national disaster management representatives as well as ministries responsible for planning and development), UNDP colleagues from Trinidad and Panama, The Caribbean Disaster Emergency Management Agency, the Bureau of Crisis Prevention and Recovery, United Nations International Strategy for Disaster Reduction and the World Bank. (Appendix 1: List of Participants).

The objectives of the workshop were fourfold and specifically sought to:

1. Strengthen synergies with existing Disaster Risk Reduction Programming and Priorities under the Comprehensive Disaster Management Strategy.
2. Enable familiarization of the national representatives with the DesInventar and Post Disaster Needs Assessment methodologies as tools for early recovery and mainstreaming of disaster reduction generally and within the proposed pilot initiatives.
3. Discuss the roles of national stakeholders in the process for the Post Disaster Needs Assessment (PDNA).
4. Outline a workplan for the UNDP/Global Fund for Disaster Risk Reduction (GFDRR/UNISDR initiatives and specify how these relate to the CDM Strategy and Programming.
The workshop was structured to facilitate active involvement with the process and high levels of interaction with the participants and the presenters. The format included a panel discussion and individual presentations which were followed by rich discourse. Each session was chaired by an individual chairperson. (Appendix 2: Workshop Agenda).

1.1 Workshop Presentations- Day One

1. **CDM Programmatic Priorities- Ms. Joanne Persad, Programme Manager, Response & Recovery, CDEMA**
   
   *This presentation sought to give participants an overview of CDEMA and the CDM Strategy 2013-2023, to increase knowledge of the recovery process and CDEMA Recovery Programming Priorities and to highlight Post Impact Assessments in the region.*

2. **Setting the Context for PDNA- Dr. Asha Kambon, Disaster Risk Management Specialist, Assessor/Trainer**
   
   *The main objective of this presentation was to provide an overview of the Post Disaster Recovery process in relation to the Caribbean context.*

3. **PDNA Institutional Background- Ms. Rita Missal, BCPR**
   
   *The presentation was aimed at providing a framework of PDNA which included its scope and rationale, features and deliverables of PDNA and the procedures and processes used to conduct PDNA. In addition, it provided examples of lessons learnt and PDNA results.*

4. **ACAPS- Mr. Lars Peter Nissen**
   
   *The presentation provided the participants with a practical example of a humanitarian needs assessment. It highlighted lessons learnt and challenges encountered.*
5. **National Government’s Leadership and Role in PDNAs and Recovery- Mr. John Calixte, Ministry of Finance and Planning, Saint. Lucia and Dr. Virginia Clerveaux, Director of Department of Disaster Management and Emergencies, Turks & Caicos**

The panel presentation was based on the experiences of the two Caribbean countries in conducting Post Disaster Needs Assessments. The presentation also outlined the lessons learned, challenges and best practices.

6. **The Conceptual Framework of the PDNA and Sector Examples- Ms. Rita Missal, BCPR**

The focus of the presentation was to provide a comprehensive overview of the PDNA and HRNA and to highlight the advantages and limitations of each tool. In addition, case studies including lessons learnt, best practices and challenges were presented based on the experiences of conducting PDNAs in Nigeria and Fiji.

### 1.2 Key Points Day One

**Data**

- Data – The importance of its availability, disaggregation, reliability, pre impact and post impact data.
- Data mining is an important component of the work of the assessors (data is available, and needs to be sourced).
- Seamless transition in the use of impact data through the post impact disaster assessment. From initial damage assessment to recovery.
- Building body of knowledge to facilitate analysis and application for planning over time.

**Rules for engagement:**

- Know what you need to know.
• Make sense not data (don’t collect it if you can’t make sense out of it. Data should be analysis driven (ask what is the decision trying to inform, the issues and then look for data, have the courage not to hide behind precise figures that have no meaning).
• Don’t be precisely wrong. Be approximately right.

PDNA

• Role in facilitating access to recovery financing.
• Down scalability for capturing losses associated with small events and builds national underlying databases and capacities.
• Three points of PDNA: Local ownership, national leadership, importance of PDNA as external audit.
• Accessing PDNA/DaLA by countries was historically facilitated through the UN System but this is an area for further discussion during the meeting.
• Emerging signals that access to post disaster recovery resources are linked to PDNA as an external audit.
• Initial Needs Identified: (1) Awareness and sensitization about PDNA (2) Strengthening the capacities for undertaking PDNA 3) strengthening post data capture.

HRNA

• Value added of HRNA at global level is in capturing social dimensions of loss and needs identification.
• Within the Caribbean context the adaptation of UNECLAC macro-socio-economic assessment methodology facilitated the capture of gender, livelihoods and environmental considerations.
Governance & Institutional Arrangements on Recovery

- Examples of recovery frameworks being structured in some countries showed different partners and different roles which have proven to be beneficial in post-disaster context.
- Role of policy and legislative frameworks were evident and these seemed to facilitate process of recovery.
- Noting the examples where states have incorporated arrangements for recovery within legislative and policy frameworks the opportunity to inform the ongoing review of National CDEM policy and legislation was noted.

1.3 Workshop Presentations - Day Two

   This presentation highlighted the five elements of a good recovery programme and provided country examples of best practices of each element.

8. Understanding Risk for DRM Applications - Mr. Julio Serje, Programme Manager, UNISDR
   The focus of the presentation was to provide an overview of how to design a comprehensive risk management strategy.

9. Disaster Loss Databases - Mr. Julio Serje, Programme Manager, UNISDR
   The presentation outlined the importance of Disaster Loss Database as a starting point to conducting a Risk Management Strategy.

10. Dewetra Platform - Dr. David Farrell, Principal, CIMH
    The presentation outlined the new tools in disaster management in the Caribbean with emphasis on the Dewetra Platform. The presentation further provided examples of the
benefits of the Dewetra Platform to countries (NDO, Meteorological and Governmental community) as a decision support system for hazards.

11. Assessing Risks in the Countries: Probabilistic Risk Profiles-Mr. Julio Serge

This presentation provided comprehensive overview on the development of national risk profiles.

12. Incorporating Risk Management into Public Investment Planning and Decision-Making-

Ms. Kazuko Ishigaki- Risk Knowledge Economist, UNISDR

The presentation focused on disaster losses and economic consequences and the advantages of optimizing public investment in Disaster Risk Management.

(Appendix 3: List of Presentations)

1.4 Key Points- Day Two

Recovery Planning & Implementation

• Recovery is an understated specialized practice and there should be preparation and investment in this element.
• The goals of the recovery process should be in alignment with the country’s overall development plan.
• The Recovery Strategy/Framework should have a clear defined mandate, objectives and interventions/roles for each sector.
• Role of policy and legislative frameworks on recovery was underscored in accelerating the process.
• Strengthening of the private sector is crucial and private sector needs to be engaged more holistically in programming.
• Disasters should not be unanticipated, know what type of disaster is expected. Be prepared for all types of disasters including extreme cases.
• Experiences in the region in establishing recovery and reconstruction were shared and example being of the implementation of the Grenada Agency for Reconstruction and Development after Ivan, Recovery Unit in Ministry of Finance in Saint Lucia.
• There is a need for documentation on recovery experiences in the region.

**Disaster Loss Databases**

• Knowledge of risk is needed for comprehensive disaster.
• Need for evidence-based research.
• Outputs of PDNAs and DaLAs can be allocated in disaster loss accounting.
• It is important to use one methodology with same definition and indicators.
• Crowd sourcing is useful to learn that an event has happened and it provides additional sources of information, however it is difficult to validate and authenticate.

**Assessing Risks**

• Defined as the combination of probability and severity of an event.
• Focus was on natural hazard (exposure and vulnerability).
• Probability of an event is usually expressed in terms of return period. However return period doesn’t mean than an event will happen in one hundred years (may happen twice in 200 years).
• Data availability is a reoccurring theme- what you put in will affect what you get out.
• Hazard mapping can be used to influence DRM.
• Principle of annual average loss is to be considered during the process.

**Dewetra Platform**

• The software and Platform can be adapted to the changing needs of the Caribbean region.
• The system depends on users and how new technology is advanced in the disaster management process.
• Role of policy to incorporate useful technology.
• Countries and organizations need to take advantage of the platform as a decision making support tool to make informed decisions.
• Significant losses as result of hydro-meteorological and climatic events such as St. Vincent, (2011) and Dominica (2012) are examples that underscore the importance of countries making prompt decisions to provide early warnings to the public.

1.5 Summary Day 3

Main presenters emphasized key points that were made during the course of the workshop which then facilitated discussions with participants who informed of perceived actions areas and recommended next steps in PDNA and Strengthening Public Investment in DRR within the region.
2.0 Workshop Proceedings

Day One - 17th July

Opening Session

The workshop commenced with a brief opening ceremony, with Welcome Remarks and Introductions being delivered by Mr. Marlon Clarke, Project Officer, Enhancing Resilience to Reduce Vulnerability in the Caribbean, UNDP. Mr. Clarke acknowledged the presence of the UN System colleagues, development partners and national representatives and encouraged their full engagement in the process. He further stated that UNDP recognized that discussions on disaster risk reductions and post disaster needs assessment could not be limited only to disaster management personnel and an invitation therefore was extended to national representatives from ministries responsible for Housing, Finance and Economic Affairs, Planning and Development.

(Members of the Head Table at the Opening Ceremony left to right Mr. Ronald Jackson Executive Director CDEMA; Ms. Lara Blanco-Rothe Resident Representative a.i UNDP Barbados and the OECS; Ms. Kerry Hinds Deputy Director DEM/Government of Barbados; Mr. Ian King Programme Manager Disaster and Climate Change Management UNDP Barbados and the OECS)
2.1 Summary of Remarks- Ms. Lara Blanco Roth- Resident Representative (a.i), UNDP Barbados and the OECS

Ms. Blanco commenced by welcoming the participants to the workshop and noted that the workshop was a collaborative exercise amongst the development partners of CDEMA, the UNISDR, the UNDP’s CRMI; and the UNDP Barbados and the OECS Sub-Regional Office which sought on one hand, to set the platform for two UNDP initiatives for the Eastern Caribbean funded through the World Bank’s Global Fund for Disaster Risk Reduction. Specifically these initiatives will address Post Disaster Needs Assessment and Strengthening Risk Management in the Public Sector and the other to contribute to national defined needs and priorities.

She further acknowledged that countries have committed to providing a resilient, equitable and sustainable future for its citizens through their national development plans and strategies and through international agreements such as the Hyogo Framework for Action and the regional Comprehensive Disaster Management Strategy. Ms. Blanco posited that this commitment can only be actualized through reduction of disaster risk which can only be realized with comprehension of the extent of that risk, the cost to society, and as a result the most effective ways of addressing that risk.

While acknowledging the commitments and progress that countries and development partners have made in addressing several needs, Ms. Blanco cautioned that there were still several areas that needed to be addressed.

In her conclusion, Ms. Blanco expressed the view that she was confident that the workshop will attempt to address some of these deficiencies and to begin to examine how national development plans and investments can be more resilient to natural hazards.
2.2 Summary of Remarks- Ms. Kerry Hinds, Deputy Director, Department of Emergency Management, Barbados

Ms. Hinds welcomed the overseas participants to Barbados and expressed the view that the workshop is one of the examples of tangible commitment and cooperation by stakeholders in the region, to building capacity in island states and the region, in addition to building synergies and advancing the articulated CDM Strategy and Framework.

She reminded the participants that the Caribbean is the second most hazard prone region of the world, driven to action by the immense loss of life worldwide and on a smaller scale in the region as a result of hazards such as earthquakes, hurricanes, landslides, floods, among others. In addition, she noted that the Caribbean over the last two decades has intensified efforts to reduce, through concerted action, loss of life, property damage and social and economic disruption caused by natural and man-made hazards, as it is recognized that hazards can potentially damage the fragile economic infrastructure of countries, potentially impeding their development agenda and in some instances negating their developmental achievements.

In her concluding remarks, Ms. Hinds posited that the extensive risk of today can become the intensive risk of tomorrow, and emphatically stated that the projected losses and damages associated with climate variability and climate change warrant urgent action by all.

2.3 Summary of Remarks- Mr. Ronald Jackson, Executive Director, CDEMA

Mr. Jackson commenced his remarks by referring to statistics on losses relating to disasters in the Caribbean. He cited that during the period 1960-1989 in the Greater Caribbean hurricane losses resulted in 28 000 deaths, disruption of 6 million people’s lives and resulting in cost of over US $16 billion. Further, he stated that the figures are more daunting for the period 1990-2013 in relation to Caribbean economies. In addition, he noted that the Damage Assessment conducted by UNECLAC and the OECS revealed an estimated damage of over $US
800 million or twice Grenada’s GDP. Mr. Jackson also referred to a report by IADB which estimated losses as a result of Haiti’s earthquake to be between $8-14 billion. He further stated that the earthquake therefore can be categorized as the most devastating event in the region’s history.

Mr. Jackson also concurred with UN Secretary-General Ban-Ki Moon stating that countries often underestimate the capture of losses in the events and he concurred that the region has not done sufficient in collecting the damage and losses of small cumulative events such as droughts and therefore missing elements of what has been captured. In essence he noted the Caribbean does not have a true picture of hazard impact.

In relation to his own organization, Mr. Jackson informed that in their new strategy for 2013-2023 recovery planning has been prioritized in a meaningful way and has been addressed in the outcome 1(output 1.4: Preparedness response and recovery coordination improved at the national and regional levels) and resources have been identified to address and review recovery planning framework. In addition, CDEMA will be addressing partnerships and mobilizing resources. In closing, he made the call that there is a need to consider role definition and understand the various roles in the process of recovery. He posited that there is a need to determine if the National Disaster Management Offices should be central in the recovery planning process, and there is therefore a need to clarify their roles in recovery planning and these roles have to be established and integrated into their plans.
Overview & Early Recovery

Chairperson- Ms. Elizabeth Riley, Deputy Director, CDEMA

3.0 Presentation 1- CDEMA Programmatic Priorities- Ms. Joanne Persad, Programme Manager, Response & Recovery, CDEMA

Summary of Presentation

The main considerations in the process of recovery were highlighted and the following key points were noted:

- The private sector was identified as a key sector for collaboration in the area of recovery and needs to be engaged more holistically in programming.
- Business continuity planning/management are extremely important.
- Focus on regular restructuring of the methodology.
- There is a need to create a space to strengthen understanding of roles and responsibilities of various stakeholders in the recovery process.
- Recovery planning is country centered and it is crucial to have a better definition of country needs.
- Three of the areas identified as challenges in the area of post impact assessment in the region included regular restructuring of the methodology, logistics (communication, transportation at the national level) and initial report writing (if not well done impedes on the process).

3.1 Discussion arising from the Presentation

- It was opined that there is a need for sound data to continue the fourth stage of the socioeconomic assessment.
- It was stated that issue of rehabilitation and reconstruction with reference to the timeframe mentioned of three (3) months needs addressing. It was reiterated that approximately 90% of the reconstruction efforts are still ongoing a year after the
hurricane. Further, the issue of assessment, small vs. large events requires addressing as insufficient attention is paid to smaller events. In fact it was argued that the data and information from small events can feed into larger events. The earlier call for good quality data in the region was echoed, and it was proposed that university students can be recruited to do research. The corollary impact of poor data on poor results was highlighted.

Ms. Persad concurred with the views on the need for sound data and that small events can have accumulating effects. She clarified that the timeline was for the assessment period (3-4 weeks) and not for the recovery process. She stated that recovery can take years to be completed and is largely dependent on the extent of damages, the sectors involved in the process, capacity etc.

4.0 Presentation 2-Setting the Context for PDNA: An Overview of Post Disaster Recovery in the Context of Caribbean Islands - Dr. Asha Kambon, Disaster Risk Management Specialist, Assessor/Trainer

Summary of Presentation

The importance of paying attention to the environment due to its socioeconomic centrality to Caribbean life was underscored, and the additional key points were highlighted:

- There is a need for sectoral assessments which will be guided by national accounts.
- The importance of collecting sound analytical data was reiterated to contribute to impact analysis and effective recovery plan.
- There is a need to identify programme impact and effectiveness.
- It was noted that from calculating losses, needs can be estimated.

It was noted that a DaLA is a gap analysis (what happened before versus what happened after).
4.1 Discussion arising from the Presentation

- It was queried if relocation of vulnerable communities is still a viable option in the recovery process, if ‘building back better’ or build according to same standards is preferred and if recovery should be viewed as opportunities created through impacts.
- It was queried about the strategies to motivate a country to commence the recovery process, and how to conduct effective assessment exercise when its people are psychosocially affected by the disaster.
- The quality and data collection methods in the region were queried and it was stated that there is an urgent need for appropriate methodologies to be administered. The point was made that reliance on other sectors for data often impedes the data collection process and it was queried how to address the post disaster political interferences.
- It was questioned if there was provision for retraining in the three main areas of the assessment process (Damage and Loss, Impact Assessment and Estimation of Needs).

Dr. Kambon thanked the participants for their questions and informed on the following:

- There is insufficient scientific evidence to indicate that relocation of vulnerable communities is appropriate. She posited that there is a real difficulty with relocation and that often persons leave newly created spaces and return to the affected areas or other persons set up houses in the abandoned affected areas. She recommended finding social measures and scientific measures such as building up, retrofitted roofs etc, and impressed the need to implement measures that will save lives.
- ‘Build back better’ – It is necessary to determine in the assessment what it will cost to return persons to their previous standard of living, and not below their previous standard of living. She highlighted that when costing, the use of previous data/situation should be included, and to identify cost for mitigation and improving quality of life. She stated that the burden is on the technocrat to build back better.
• **Emotional needs** – She acknowledged that recovery really relies on the strength of the people, and cited the Haiti experience as an example.

• **Need for training** – it should be scheduled; interim period of retraining should be included in the five term plans as loss of institutional knowledge and human capacity is a reality that must be addressed in the region.

• **Meeting needs vs. assessment process** are two different things. It was noted that there are organizations with a mandate to meet people’s needs and others are responsible for conducting assessments. She advised that both tasks cannot be undertaken at the same time.

• **Local level events** – She noted that the data of these are important as it builds skills and it helps us to see what is happening and can aid in the future planning.

• **Inter-sectoral linkages** – Reiterated that this is the reason for collection of data on damage and loss. She referred to the event in western Jamaica (Dudus Coke Affair) and the impact on the ability of taxis to work due to the centrality of the area. She stated that often opportunities are missed and resources left out, and this absence affects macroeconomic analyses.

Other areas arising from the discussions included:

• Examples of recovery frameworks being structured in some countries showed different partners and different roles which have proven to be beneficial in post-disaster context.

• Role of policy and legislative frameworks were evident and these seemed to facilitate process of recovery.

• Noting the examples where states have incorporated arrangements for recovery within legislative and policy frameworks the opportunity to inform the ongoing review of National CDM policy and legislation was highlighted.

• In Dr. Kambon’s presentation some best practices were illustrated and opportunities from Caribbean countries’ experiences were provided to further enrich the dialogue.
5.0 Presentation 3- PDNA Institutional Background: Institutional Arrangements & Protocols for Cooperation- Ms. Rita Missal- BCPR

Summary of Presentation

The ultimate objective of PDNA is to enable sustainable recovery. Past experiences show that multiple assessments are time and resource intensive and result in lack of coordination, partial recovery planning, as well as provides multiple and sometime contradictory advice to affected governments. Further it was noted the importance to converge in a single document that highlights the efforts of the Government and the international community to support the recovery process. Other critical points highlighted included:

- PDNA is a good tool for planning and programming recovery and provides information on coping with losses.
- PDNA emphasizes how the collaboration is occurring at the global level.
- It was noted that all areas of damage and loss cannot be quantified monetarily and consideration must be given to the effect on livelihoods and services.
- PDNA timelines vary and it is important that the window of opportunity is not lost when these are being conducted.
- PDNA actors include NGOs, civil society, PDNA Secretariat (Senior Management of DMA, UN Coordinator, EC Counsellor, WB Country Representative) line ministries, DMAs, EC, UN and WB (GFDRR). It is a tripartite effort of the EC, WB and UN. The EC is the major donor for development cooperation and the UN agencies that play a crucial role in humanitarian and development efforts are crucial partners in the identification of human needs and recovery programmes that are people-centred and restore local capacities leading to sustainable development. Ms Missal noted that the PDNA approach is more comprehensive and adds the social element to the infrastructure and the economic approach for recovery.
PDNA Procedure includes:

1) Government request for assistance in assessing the impact of a natural hazard and supporting the development of a recovery framework addressed to the 3 partners.

2) Inter-agency communication at national and global level (EU, UN, WB), following the tripartite agreement.

3) PDNA planning mission conducted by the three partners (EU, UN, and WB) to establish the goals, sectors and process of the assessment (TORs) and identify the resources needed for conducting the PDNA.

4) Identification of local and international experts for the multi-agencies assessment team led or co-led by the Government staff.


- PDNA is an integrated framework for assessing disaster effect and impact across all sectors based on national accounting system and inclusive of the absent DRR perspective. Cross-cutting sectors include gender, governance, disaster risk reduction and environment. It was noted that there is a need to identify all existing infrastructure particularly what is added to government’s public infrastructure.

Role of Government:

- Initiate the process, scope of assessment.
- Coordination between sector ministries, national and sub national level logistics.
- Planning: Data collection, decision on categories of damage, unit costs.
- Validation and use of the assessment report.
- Institutionalization of process.
- Resource allocation and donor coordination.
- Monitoring Progress of recovery.
PDNA lessons learnt:

- Leadership and ownership of national Government at the highest levels are crucial to assessment and recovery plans.
- Assessments have to be participatory and inclusive of the needs and priorities of affected communities.
- Assessments have to be followed through with dedicated financial and human resources and institutional arrangements for recovery. Assessments are only the first part, without follow through the value of assessment is diminished.
- Well-coordinated approaches—all partners working together.
- Linkages between Humanitarian and Recovery assessments and responses.
- Disaster can be a transformative opportunity. Need to utilize what may be the only opportunity to address (what are in fact previous) vulnerabilities.
- Results of Collaboration – some countries have institutionalized the recovery process; concept of recovery moved from infrastructure to livelihoods.

5.1 Discussion arising from the Presentation

- It was queried what the link was between scales of impact to PDNA requirement.
- It was stated that PDNA is a technically led process and it was queried if it has changed investment processes of countries, investments of donors and what has been the qualitative effects.
- The question was asked if there were increasing requests and what have been the implications of these increased requests.
- It was questioned if there has been an opportunity to assess the impact for adjustment with regard to assessments and outcomes, and it was queried what was good quality data.
- Further queried whether the data collected at national level is used to guide the PDNA process.

In response to a number of queries and comments Ms. Missal noted the following:
• Investment in PDNA portfolio – looks at national portfolio, planning instruments of UN systems and the UNDAF strategy has to be included; especially given that the programme for DRR is built into UNDAF. Further she noted that for BCPR her entire workplan is about the PDNA and it is mandatory that she reports on disasters.
• World Bank has many options/programmes to support.
• She noted that with regard to capacity building in PDNA it does not appear that what is being done is sufficient. She further informed that the EU has been building capacity among partners through provision of resources, training for regional agencies and UN Country Teams but that they are not physically involved in the process. She also noted that DEVCO is also conducting assessments.
• Only a few persons involved in the process are non-nationals, PDNA experts guide the process through and write the report (which in itself is a heavy task) to help formulate a recovery strategy. The head of the national government and the NDOs make decisions on the scope of the exercise, as well as a determination of priority needs. It was further noted that PDNAs are provided to the national government.
• There is training before an assessment to orientate national partners on the inputs and analysis and as well as to investigate the quality of the existing data (ex ante and ex post).
• As it relates to the scale of impact to invite a PDNA, it was noted that there is no honest answer as some governments decide irrespective of the scale of the event to use the PDNA.
• Meeting was informed that if a PDNA is not done, governments will do their own perhaps seeking support from development partners. It was reiterated that the decision is left to the government.
6.0 Presentation 4- Panel Discussion on National Government’s Leadership and Role in PDNAs and Recovery- Mr. John Calixte, Ministry of Finance & Planning, Saint. Lucia and Dr. Virginia Clerveaux, Director Department of Disaster Management and Emergencies Turks & Caicos

6.1 Summary of Presentation on Saint Lucia’s Experience in the Post Disaster Needs Assessment Process

The presentations highlighted the experiences of Saint Lucia and Turks and Caicos in conducting PDNAs and the following points are noteworthy:

- Initial assessments were undertaken by Sector ministries, and the National Damage Assessment Team also undertook an assessment.
- Assessment information was sent to Ministry of Planning, Economic Affairs and National Development-coordinators of the recovery effort.
- Ministry of Planning took the decision to request a damage needs assessment.
- Collaboration with IICA in preparing the TORs.
- ECLAC was also approached to conduct the assessment with it being coordinated by the Ministry of Planning.
- Damage affected mainly farmers (banana farmers).
- EU assistance package mainly through impacts; involvement of various Ministries and departments; design of short and medium term plan/programme.
- UNDP expressed willingness to assist with the damage assessment.
- Team was determined by the effects on the ground (Coastal Specialist, Agricultural Specialist, Geo-Technical Engineer specialist on mass movement of slope movement, Tourism & Environmental Economist, Specialist in Human Settlements & Physical Planning).
- Assessment included quantification of the impact.
A concentrated effort was made to implement some of the recommendations from the report.

As a result of the completed report, the Ministry of Finance has engaged the World Bank, CDB, and CFTC for financial assistance to implement some of the projects identified.

Establishment of the National Reconstruction and Development Unit resulted through this process.

6.2 Summary of the Presentation on Turks and Caicos Experience on Post Disaster Needs Assessment Process

- There is a multi-sectoral group to drive DRR; comprising all entities (government, private sector) and their role is to coordinate post impact assessment and provide necessary advice.
- The group bridges the gap between donors and executive agencies.
- The NDO is operationalized by a committee under the Ministry of Finance.
- Recovery is led by the Governor through a National Task Force, and it is responsible for policy development, prioritizing strategies, developing a multi-hazard development plan, harnessing leadership to follow through on decisions taken, developing and implementing a Damage Assessment Plan.
- Damage Assessments follows the DANA- Multi-island teams are established of multi island teams (6 inhabited islands) with field and aerial assessments undertaken immediately after. Training programmes are also conducted.
- It was noted that prior to 2008 (Ike/Hanna) Turks and Caicos went at least 25 years without an impact on the territories.
- TCI training commenced in 2012, and through a subcommittee taught DANA. The trainers were drawn from CDEMA or Red Cross, while the ECLAC methodology was facilitated through the Department of Economics.
- A decision was made to standardize methodologies.
• Challenges to post impact process included lack of holistic programmes, lack of involvement of community based groups; inadequate numbers of persons to conduct detailed assessments.

• Importance of having the report completed on time was underscored as the fragmented approach has proven disadvantageous. With regard to Hurricane Ike there was over $119 million in damages and to date many homes are still undergoing repairs.

• It was noted that the absence of technical capacity affects the ability to execute plans and results in loss of funding. It was stated that there is a need to build the technical capacity in housing to attract funding for outstanding affected areas.

6.3 Concluding Remarks by the Chairperson, Ms. Elizabeth Riley

Ms. Riley highlighted the main points emerging from the panel discussion:

1. Complexity/diversity to be managed in the recovery process including multi-sectoral and multi-level considerations.

2. Availability and process related to data - Importance of baseline information, importance of small event data that provide cumulative impacts and utilization of data throughout assessment process along time continuum.

3. Roles - Important to consider the breadth of actors both official and unofficial involved in the recovery process. In addition, it is necessary to explore strategies to render support and guidance to the unofficial actors, and this would include capacity building.

4. Scope and Prioritization process and how assessment is affected.

5. Diversity of modalities for addressing recovery - Opportunity for Caribbean experiences to inform global dialogue.

6. Governance and institutional arrangements - Need to institutionalize matters on roles and process of governance arrangements.

7. Importance of Broad Participation - Based on lesson learned at country level it is necessary to include persons at the community level.
Summary of Presentation

ACAPS was launched by three (3) NGOs deriving from the need to determine how to assess a situation which is dynamic, has large information gaps and there is pressure to make decisions quickly. The following points were emphasized:

- Lessons learned from Pakistan floods in 2010.
- Conducted existing assessment mechanism MCRA.
- Surveys were conducted with 2400 households over a 30 day period.
- Questionnaires were long and too much energy and time were spent on collecting primary data which affected the time for analysis.

The Rules for Engagement presented include:

1. Know what we need to know (do we know what our requirements are).
2. Make sense not data.
3. Don’t be precisely wrong, be approximately right.

The MIRA Approach which was recommended:

1. Systematic use of secondary data – don’t over collect primary data.
2. Purposive sampling at community level.
3. Analytical framework – don’t focus on questionnaires but on what you want to know.

There is a need to first analyze what you already know before jumping into the situation. The point was reiterated to posses the courage not to hide behind precise figures which have no meaning or relevance.
7.1 Discussion arising from the Presentation

Mr. Nissen was complemented for the presentation with it being recognized and acknowledged as an honest representation of the lessons learnt and reiterated that sensible data collection is what is required.

- It was queried whether ACAPS had the opportunity to compare impacts of smaller countries using initial assessments and not PDNAs.
- It was questioned to what extent the process was driven internally by local actors. The issue was also raised if there were any lessons learned about presenting material to various audiences.

Mr. Nissen stated that in his experience with the flooding in Brazil, where 30,000 people were affected he found getting organizations with different sectoral focus to collaborate was challenging as persons tended to stick to their ‘technical corner’.

Mr. Nissen further informed that in order for processes to be successful there must be broad ownership. He further noted that there are numerous methodologies and the methodologies must be constructed by national stakeholders; there is no one size fits all. It was reiterated that a pragmatic approach to conducting the PDNA should be used.

- Emphasized that further work is needed on the dissemination of results; reference to 120 page report versus 3 or 4 maps and their use as a coordination tool. There is a need for creating visual presentations of information and the methodology used is essential.

8.0 Presentation 6- Post Disaster Needs Assessment: Overview of the Conceptual Framework of the PDNA- Ms. Rita Missal, BCPR

Summary of Presentation

DaLA methodology has been used for 40 years. It identifies what are the social losses, in addition to the economic losses and it also focuses on strengthening capacity at a national level. Other noteworthy points highlighted include:
• HRNA recognizes the need to make the recovery process a little stronger; how do people meet the basic needs and access social services. It takes into account the fulfillment of needs as well as the capacity to cope with and recover from the impact of disasters.

• Complimentary Strands of Assessment – what is the negative impact of disaster on human development and achievement of MDGs, HDI etc.

• With DALA it depends on the right secondary data and analysis of what data is not there; human recovery needs assessment in education, health and housing as well as the impact across different groups.

• Challenges of HRNA were identified as follows:
  1. Unavailability of baseline data.
  2. Conducting the survey.
  3. Time required for consultations with stakeholders.
  4. Qualitative inputs/analysis conversion to dollar values.
  5. Sector alignment does not neatly fit into national accounting systems.
  6. How far can we go in addressing risk and vulnerabilities?
  7. Involvement of a wide group of stakeholders in recovery to address “holistic recovery”.
  8. Monitoring progress for improvement in quality of services and security of community.

• Importance of getting the people’s perspective; work done toward synthesizing PDNA.

8.1 Discussion arising from the Presentation

• It was stated that the HRNA approach is quite comprehensive and queried when applied appropriately if there is scope in shaping specific social policy. In addition it was noted that there is an intensive investment in getting results, and queried the benefits versus the costs.

• It was noted that the measurements versus increasing risk and it was queried how to express to decision makers the changes in risk.
• It was queried about census data and its uses in HRNA.
• The importance of having legislation and policy to use the two (PDNA/HRNA) frameworks and the use of secondary data sources was queried.
• It was stated that there is disagreement on the immediate availability of health data and it was queried how acceptable it is to use a household survey. Reference was also made on how to build up regional statistical offices.

Ms. Missal noted the following:
• Some governments (Indonesia, Laos, and Philippines) have recognized the opportunity to use methodologies to shape policy. How the population reacts to disasters has become an extremely important question. Noted that there has being been a variety of programmes that have come about due to HRNA.
• Costs are high; in the case of Indonesia the cost benefit analysis is very good as evidenced by their subsequent actions regarding tracking etc.; there are differences with Nigeria who is taking a more sector specific approach.
• Increased risk and vulnerabilities due to social problems (e.g. blown down house) risk and security; consideration of vulnerabilities due to disasters are done more sector specifically; DRR assessment.
• Health and Education surveys provide rich data for the HRNA baseline. In addition it was noted that HRNA provides an understanding of the effects on livelihoods.
• It is not absolutely necessary to have a legislated position to use frameworks unless the country is significantly prone to disasters.
• A robust DRR process should result in a relative ease of response, political will and determined level of usage.
• There must be some data available in some place on which to act.

Dr. Kambon stated that the difficulty is in the post disaster period. However she stated that good assessors will know how to identify it.
• It was queried how governments opted to prioritize recovery efforts due to PDNA results.

Ms. Missal informed that in relation to Nigeria versus Fiji, the Nigerian challenge is not resources but the allocation of resources while Fiji’s challenge is resources. Fiji is currently taking steps to determine recovery efforts according to available resources and that Nigerian political process has impacted the recovery process.

• Further queried if the PDNA report is a requirement for the input of funding from USAID.

In response Dr. Kambon confirmed that it was a requirement and the PDNA process is viewed almost as an audit.

9.0 Presentation 7- Sector Examples: Housing Sector, DRR Sector, Health Sector: Case Studies from recent PDNAs in Nigeria and Fiji - Ms. Rital Missal, Dr. Asha Kambon

Summary of Presentation

It was noted that in both countries the coordination of PDNA is undertaken by the NDMO. In Fiji the process is led by the Ministry of Planning, while in Nigeria the process is led by federal government personnel.

• In Nigeria activity is at the state level; policy making at both the state and federal level. Reference was made to an occasion where a state which facilitated training of their personnel was not affected. Need for persons engaged in the process to be appropriately trained.

• In Fiji there was prior training of officials and the NDO was responsible for making contact with personnel on the ground and gathering data. The training was in analysis and initial data collection. However the social information data was lacking and hence HRNA was not possible. However, that data was subsequently gathered and a powerful (local) anthropologist assisted in the design of the questions. There was consensus on utilizing focus groups instead of a detailed questionnaire, and the implementation took
four to five days in the field, comprising of three or four teams. It was noted that upon finalization of the document the Cabinet institutionalized the process.

- It was highlighted that Fiji’s PDNA is available online and participants were encouraged to review it.
- Relating to Nigeria, training was inadequate as it did not train the requisite individuals. The importance of timing of the process was emphasized and the personnel engaged must be able to take ownership of the process appropriately and there is a need to build a collaborative spirit amongst all stakeholders and participants. Nigeria is interested in technical assistance toward making better decisions. It was emphasized that NDOs as coordinators “had their hands full”.
- Reference was made to the Jamaica example where it was recognized that they are losing personnel and a decision was made to produce their own guide. This was led by the Planning Institute of Jamaica.

9.1 Discussion arising from the Presentation

- One of the participants made reference to the priorities of the incoming CDM regarding gender and queried how information on gender and persons with disabilities has been addressed.
- Reference was made to the CDEMA’s mechanism support to impacted states (standards/processes) and it was queried if there will be a common framework to support PDNA.

Dr. Kambon informed that:

- Issue of gender is a part of the PDNA analysis.
- This is where the NDOs can make a difference in post disaster information collection. She reiterated the need for NDOs to train their people and informed that most other national data is disaggregated at least by sex.
- There is more information on persons with disabilities as ministries of health capture this.
Further Ms. Missal noted that:

- It is mandatory to have a gender specialist as part of the team.
- It was queried why some countries are ‘on top’ of the process? (i.e. social policy position, continual effects of disasters).
- Mr. Calixte stated that it is cultural and experiential. He advised that Saint. Lucia learnt a lot from the experience. There is currently a policy document which outlines roles of each member entity and he iterated that such a system makes it easy for persons to perform the roles.
- Reference was made to the CDM mechanism and support to impacted states. It was noted that PDNA as a requirement is a critical issue for CDM and PDNA must be looked at within this context with existing processes. From her point of view there does not appear to be any conflict but there is a need for harmonization and discussion over the lead agency driving the process. Issues including multisectoral training, data availability as well as access and formatting issues remain a challenge. It was further noted that recommendations coming out of the workshop will inform the work programme.
- Meeting was advised that in instances of disaster, particularly issues of Recovery, the UN head will inform a country of the available tools. It was further noted that resources provided by the CDB are applicable to support that type of assessment.
- The scalability of the methodology and the importance of downscaling the methodology and applying it appropriately were queried.

Dr. Kambon noted that the methodology can be scaled down. She cited the Surinamese example where the Maroon community was affected advising it is possible to do rigorous analysis. She further noted that there is a need for culture changes in the country in order to use it to add value to what is done. In addition she stated that there is a regional problem of not collecting data for the sake of future use. She informed that there are no constraints with this methodology.

- Meeting was reminded that while training in using PDNA is important the onus is on the countries to use them is paramount.
• Participants were further reminded to be cognizant of the rules of engagement.

9.2 Closing Comments by Chairperson Mr. Ian King

• There are additional issues which must come through DaLA particularly those with regard to livelihoods.
• Discussion on PDNA application in Nigeria and Fiji and the overriding issues of the ownership of process was highlighted. It was noted that countries should own the process so there are fewer complaints on the results as compared to when the process is owned externally.
• Need to address the assessment processes, the collection of data and data disaggregation.

Day Two - 18th July

Disaster Risk Reduction Mainstreaming Tools

Chairperson: Mr. Richard Thompson- Director General a.i Office of Disaster Preparedness and Emergency Management (Jamaica)

10.0 Presentation 8- Preparedness for Recovery and Experience Sharing on Post Disaster Recovery- Ms. Rita Missal

Summary of Presentation

It was underscored that defining needs and priorities are absolutely important in preparing for recovery and the following points were noted:

• Institutional arrangements include 5 basic options:

  1. Special agency set up for recovery and reconstruction-large scale events; five (5) year programme.
2. Single department acts as a lead for specific event, common in countries with recurring disasters.
3. Division of role between federal and state governments.
4. Specialized national committee which provides oversight – not exclusive to government technocrats and experts practice in Japan.
5. Provincial/ state entrusted with implementation. At the district level this is done entirely on their own with federal government mainly being restricted to funding or negotiation of funding. Programme management/implementation unit within an agency to oversee contracting, financial/arrangements. There is a need for a high level of flexibility and transparency.

**Institutional Set up for Recovery**

- Iterated that both cases of the Gujarat State Disaster Management Authority and Orissa State Disaster Mitigation Authority have worked very well with a high level of transparency and a high level of success in bringing together public and private sector. Both entities still function despite thoughts to close them.
- Badan Rehabilitasi dan Rekonstruksi (Indonesia) - now closed and handed responsibility to the national agency.
- Earthquake Rehabilitation and Reconstruction Authority (Pakistan) – highly commended organization, now closed.
- A Committee-oriented approach (Japan) – prefecture based one national committee but groups of experts across states.
- Multi-agency approach (FEMA in USA).
- Turkey – two agencies set up after the Marmara earthquake. The multiplicity of authorities responsible for disasters increased the complexities of administration considerably.
- The need for management and coordination function to make sense and bring order to all the resources and good intentions was emphasized.
• Substantive capacity building support to implementing agencies – need for a diversity of skills was highlighted.
• It was underscored that a recovery institution must have a recovery mandate, recovery policy and recovery plan, and be politically empowered.

Standards and Guidelines

• Key areas for technical guidance include – housing reconstruction, repair and reconstruction of public infrastructure, livelihood asset replacement, and disposal of rubble of waste, compensation and insurance schemes.
• What are the basic expectations of the receivers of the contribution? Importance of clarifying and negotiating the terms and conditions of funding.
• Guidelines for specific situations must be predetermined.
• Government of Indonesia has reconstruction and rehabilitation guidelines, environment, psychosocial and health.
• Chinese government has a checklist covering each sector – principles for implementing examples.
• It was underscored that there must be uniformity, minimum standards and equity in DRR.
• It was noted that Implementation strategies are usually delivered by a mix of entities/groups through a variety of methods.
• Implementation time frame – large scale recovery programme 3-6 years.
• Donor and NGO coordination arrangements – create a special (small) cell to coordinate donors, NGOs, charities; information dissemination on recovery programmes [need to have clear public information explaining precisely the mode and method of reconstruction] Sri Lanka e.g. where strong community outreach existed; feedback mechanism.
• Thematic working groups – looking at specific sector issues.
Inclusive approach, coordination arrangements including Early Recovery Cluster System

Financial mechanisms

Monitoring and Evaluation

- Need to create appropriate transparent systems where financial monitoring can occur.
- Longitudinal Study in Marpai Recovery.

Lessons learned- Case Study from Japan Earthquake

- There should be no such thing as an “unanticipated” disaster.
- Countries must be prepared to respond appropriately to whatever scale of disaster.
- Recovery should be done in association with local groups.
- There should be legislation for reconstruction from large-scale disasters.
- Promotion of national resilience.

Key Lessons on Recovery

- Recovery is a specialized practice area.
- Government leadership and multi stakeholder partnerships are crucial.
- Application of DRR principles.
- Recovery is time sensitive and begins on the day of the disaster.
- Recovery is about building capacities, being inclusive, equity and justice.

10.1 Discussion arising from the Presentation

- Dr. Kambon shared some regional examples such as the case of Ivan in Grenada with the establishment of the governmental recovery unit (Agency for Reconstruction and Development. The same did not happen in Haiti. In Saint-Lucia a Unit was established to look at management of the recovery process. There are excellent examples of what has happened in the region by which we can match.

- Ms. Riley supported comments by Dr. Kambon. She stated that there is a need to create a space within the region for documentation of efforts.

- Ms. Riley further highlighted the:
• Importance of recovery has been well recognized at ministerial level of CDEMA with internal conversation on CDEMA CU in supporting regional states in recovery.

• Framework document (basic document) is very clear on preparing a model recovery framework.

• Opportunity for deeper discussion on the practical needs of countries in supporting recovery which will allow for more accurate shaping of the work programme.

Ms. Missal informed that recovery has recently gained more prominence and six (6) Central American countries currently have a guide. The World Bank Recovery Handbook is also currently in use. She posited that the simpler a document is to read the better it is.

• It was queried about funding directly to organization and instances of major impact where recovery is long term. She further queried how the government’s development budget, which is now focused on recovery, be handled.

• Reference was made to the Grenada example and publications. It was noted that this provides an instrumental example of a large scale disaster and recovery effort within the region. Reference was also made to Saint. Lucia addressing the process where a separate fund was established. The meeting was informed that consideration should be given to the potential tensions between line ministries and agencies.

• Meeting was informed that in Jamaica the offices of reconstruction were established following the passages of Hurricane Gilbert, Ivan and Sandy, set up office of reconstruction. However it did not work as it should. There was recognition of the need for a recovery plan to be administered by a national entity while gaps in the process indicated that duplication exists.

• Reference was made reference to the PDNA experience and it was queried how involved are the communities in defining their recovery process.

It was stated that there is a challenge with NDOs directing line ministries and queried how this issue can be addressed.

It was noted that Jamaica is still in the process of planning recovery development and the roles and responsibilities are clearly outlined. As an example relating to Hurricane
Sandy a portion of the national budget went to reconstruction which was separate from the national disaster fund (which may be insufficient to address major/unexpected challenges).

- It was stated that with small scale events, Barbados was required to establish a recovery team (Lily (2002), in 2004, Tomas (2010) which was set up within the DEM for the duration of the project’s execution. They established below the line accounts administered for special purposes which generally worked well. It was reiterated that to avoid confusion the role the agency plans in the recovery effort must be the role the agency plays in “normal” times.

- It was suggested that a committee oriented approach should be considered due to scale of event with ministries coordinating activities. It was reiterated that local culture is very important in this process.

Ms. Missal informed that at the formation of an agency secondment often occurs. She further noted that community involvement in developing priorities is vital. Relaying the Indonesia case, Ms. Missal informed that communities are involved to some extent while in some countries reconstruction plans are shared with communities to inform them of what is to be done although very often it does not happen. The meeting was informed that Caribbean states should not have a challenge with community consultation due to their relative size.

- It was noted that there is a guide for stakeholder engagement from the process after Hurricane Ivan.

- It was further noted that it is important to understand the scope of what is wanted and ensure the data is there. Reiterated that assessments requires practice (it may be scaled down and applied to minor events).
11.0 Presentation 9- Understanding Risk for DRM Applications- Mr. Julio Serje, Programme Manager UNISDR

Chairperson: Ms. Jacinda Fairholm

Summary of Presentation

The presentation focused on providing capacity to design comprehensive risk management strategies. The following points were also noted:

- Everything should be done to reduce losses and the burden of economic losses.
- Three major components were outlined specifically:
  1. Increased risk knowledge.
  2. Increased public investment in DRR.
  3. Risk finance and transfer mechanisms.
- Noted that risk transfers and financing mechanisms exist in the region but the entire mechanism has room for improvement.
- Four integrated components include:
  1. Disaster loss accounting.
  2. Probabilistic risk profiles and assessments.
  3. Increased risk-sensitive planning and investment.
  4. Risk financing and transfer mechanism.

Designing DRM Strategies

- Begin with disaster loss accounting/databases – which hazards are affecting the country; identify what are the portfolio of assets and the potential risks.
- Risk modeling and assessments – after modeling has been completed countries will have a better understanding of the process as well as the importance of the quantitative element.
- Disaster risk management strategy – strata of risk; risk retention elements which governments continually pay for; the need to put numbers; there should be a portion allocated to lowering the risk; pre financed risk; contingency fund etc.
- Monitoring – returning to the loss accounting is a good means for monitoring.
- Disaster loss accounting - The outputs of PDNAs and DaLAs can be allocated in disaster loss accounting.
- Probabilistic risk profiles include elements on hazard calculation and its challenges. Reference to risk maps, to Probable Maximum Loss and to Annual Average Loss was made.
- Loss Exceedance Curve – probability of a certain loss to be reached or exceeded. Curve speaks to potential behaviour of losses with governments using these to begin to think in ways to cover risks and potential losses.
- Risk retention, financing and transfer structure. There is a need for real numbers to be allocated towards retention. Also mentioned that retention may be managed by reserve funds.
- Need for a perspective on what is being covered.
- It was suggested that sponsorship will be needed to implement reserve funds in the Caribbean.

Steps to Reduce the Risk

- The implementation of DRR includes:
- Corrective risk reduction measures.
- Prospective risk reduction measures.
- How do we prioritize DRR from a public finance perspective? It was noted that 6-10% of GDP should be allocated as public investment; public investment as a safeguard (against disasters).

11.1 Discussion arising from the Presentation

Ms. Ishigake and Mr. Serje informed that the calculation of risk can be tailored to specific assets with an existing portfolio of assets being useful to this process.
- It was queried how the criteria may be included in the private sector community.
Mr. Serje advised that in the GAR questions of advocacy and governments working with private sector are addressed. He further noted the importance of private sector taking into account risk in business continuity as well as various tools which may be used in subsidies, tax breaks, etc. He also informed that Mexico, Peru, Ecuador and Colombia have gone through the processes of working with the evidence to tailor their strategies and budgets.

Additionally, he stated that the results will be publicly shared in publication as part of the next GAR. In addition there will be a specific publication of a document that outlines this process.

- Mr. King advised that UNDP held discussions with CDEMA and it has been agreed that the initiatives are relevant to all countries. Meeting was informed that the intention is to share the experience with partners in order to make a case to take the process to other countries, making a more effective next step.

- It was queried whether there are plans to take the results to CDEMA council to highlight its importance. In response it was noted that having done the work it is important to consider the implementation of this suggestion.

Ms. Riley made reference to close collaboration on the initiative; under intended results of EDF 10. She noted that the sensitization process to national level Cabinets from CDEMA perspective was needed.

12.0 Presentation 10-Disaster Loss Databases- Mr. Julio Serje, Programme Manager, UNISDR

Chairperson: Ms. Michelle Forbes, Deputy Director, NEMO St. Vincent and the Grenadines

Summary of Presentation

The presentation outlined the importance of Disaster Loss Database as a starting point to conducting a Risk Management Strategy.

The starting point the EM DAT (source of disaster information) is used as a minimum threshold. The following points were also noted:

- It was noted that national data is existent but largely inaccessible.
- Process does the opposite to the deconstruction of disasters with reference being made to Hurricane Mitch in Honduras. Noted that greater interest is expressed in what happens at the various local levels (geographically/by municipality).
- It was stated that disaggregation allows for greater analysis.
- National databases- These present a richer set of indicators; disasters are fractals. These present an opportunity to look at what is happening at the local level.
- DesInventar is built on over 60 databases across the world. Further noted that disasters do not have boundaries and data and its availability normally vary between countries. The meeting was informed that the data can be translated into a variety of maps and charts.
- Reference was made to the Sri Lankan example highlighting how the database has been transformed into a public information tool.
- It was iterated that information (in general) should be used to calibrate vulnerability noting that indicators of damage are what are mainly collected. Further noted the ability to indicate potential costs
- It was highlighted that there are significant advances in assigning an economic value to disaster loss databases with more information being provided on smaller scales which are difficult to model.

12.1 Discussion arising from the Presentation

- It was queried if experimentation has occurred with crowds and if the OECS countries have agreed with the risk profiles.

Mr. Serge stated that developing the crowd sourcing and experimentation with the GLIDE system which works with DesInventar has occurred. The intention with crowd sourcing is to allow individuals to provide a means of verification. He further informed that he was unable to comment on how the country profiles were used as many sub products of processes are not used to their full potential.
It was further noted that no profiling has been conducted as yet. However preliminary profiles are available from GAR. In addition it was explained that as a UN system it was proposed that most information be kept in the public domain. However, it is individual countries that will determine whether or not to do this.

- Meeting was informed that this level of discussion has not yet occurred but hopefully they are as public as possible. Reference was also made to the recent primary risk reduction processes.

13.0 Presentation 11- New Tools in Disaster Management in the Caribbean: Dewetra Platform- Dr. David Farrell, Principal CIMH

Summary of Presentation

The presentation outlined the new tools in Disaster Management in the Caribbean with emphasis on the Dewetra Platform. The meeting was informed of the following:

- The Dewetra Platform was conceptualized noting the need in the region for support in building capacity for information diagnostic systems (e.g. damage and loss assessments, hazard and vulnerability mapping etc.), response mechanisms to facilitate decision making for mitigation and early recovery and reinforcing a culture of proactive planning and response in disaster mitigation and risk reduction.

- Informed that the purpose of the Platform was to provide real time decision support centre for early warning and to reduce losses. Reference was made to the St. Vincent 2011 floods and the Mathieu Dam failure in Dominica. Relating to the Dominica event it was advised that the information available in country was probably sufficient to make a decision if persons knew what to look for. Additionally, he stated that climate data was not being translated to information.

- It is anticipated that through the use of Dewetra Platform damage will be reduced to the decision made before an event.
• Further noted that the DEWETRA is a country network for the passage of information (meteorological, hydrological and earthquake information) with the redundancy built into the system allowing for information to pass through irrespective of a failure at any point. Noting that capacity within the network may be leveraged due to its connectivity;
• It was reiterated that the Dewetra Platform is entirely internet based and supports risk forecasting and analysis.
• The meeting was informed that currently there are a variety of stand-alone products (drought forecasting products, rainfall products etc.) but the challenge is the integration of all the information. The Dewetra Platform allows of this integration so decision makers have all the information in one place.
• The Platform has been in use since 2011 and there is a need to extend it. Noted that the process to adapt the software has commenced but this is still ongoing.
• The meeting was advised that while the project under which the Dewetra Platform is being developed directly benefits Barbados and the OECS, all regional countries may derive benefit from the Platform. It was further noted that the primary server for the Platform is located at CIMH in Barbados while the backup server is housed in the national meteorological services in Antigua and Barbuda.

13.1 Discussion arising from the Presentation
• It was queried whether Trinidad and Tobago is one of the countries using Dewetra.
• It was noted that Trinidad and Tobago’s Meteorological Service is not directly involved; although discussions were held with officials from Trinidad and Tobago noting there is an avenue to bring the country on board. Dr. Farrell further noted that Jamaica has also expressed an interest in having their data sets on the Platform. Additionally he advised that countries outside of the project countries will have to provide the cost to facilitate the upload of their data on to the Platform while the password access issue can be worked out.
• It was further informed that Trinidad & Tobago was involved at some level over the past two Comprehensive Disaster Management Conferences through the involvement of the Trinidad and Tobago Meteorological Services and NDO.

• It was queried how comprehensive the project is and if all the Automatic Weather Stations are linked to the platform. It was further questioned whether experts are the only ones that can use the Platform

• Dr. Farrell informed that four (4) pilot countries are tied to the DEWETRA in the region. As pilot countries they have each received two weather stations; more focused models, more specialized training in GIS, software engineering. Pilot countries also host the equipment that will be used to operate the Platform.

• The meeting was informed that the social data (road networks, key building in countries etc. ) has currently being digested into the Platform thereby providing an opportunity to forecast risk populations.

• Mr. Serje informed that UNISDR is also working with CIMA Research Foundation of Italy on hazard modeling using the CIMA models.

• In response to a query on the community of users, Dr. Farrell informed that the community of users is mainly meteorological and disaster management personnel in Barbados and the OECS. However, he noted that the potential users are significant. In addition he emphasized that the Platform begins to support gap analysis and encourages consideration of where investment should go to begin to reduce risk.

• It was queried if the strategies exist so that the Platform can be linked with the Ministry of Planning and Finance in Country to assist in their decision making processes. It was further queried how much the Platform can be used to reduce loss and damages.

• Dr. Farrell iterated that the Platform can look at risk by event and communicate with Ministries of Finance. In addition it emphasized that the Platform can assist Disaster Managers projections of expected weather activities and the tool has the ability to capture the information over long term.
14.0 Presentation 12- Assessing risk in the Countries: Probabilistic risk Profiles- Mr. Julio Serje, Programme Manager, UNISDR

Chairperson: Mr. Filmore Mullin Director National Office of Disaster Services Antigua and Barbuda

The presentation provided multiple examples of risks noting that risks comprise hazards, exposure and vulnerability. The following points were also highlighted:

- There are a variety of systems which may be used to calculate hazards with all models being built or calibrated on historical events.
- Noted that the integration of hazard mapping into planning and policy is necessary.
- The real value of a probabilistic risk map is and the definition of the Probable Maximum Loss was provided. It was further noted that the political (consideration) of the return period is an extremely important reference to use.
- Hazard, exposure and vulnerability, as well as the risk indicators Average Annual Loss as well as the Probable Maximum Loss can be calculated at different scales.
- Noted that the first step of a national risk assessment is to calculate National Risk Profiles which will inform priority areas for developing detailed hazard and risk assessments that will support detailed interventions.

15.0 Presentation 13- Incorporating Risk Management in Public Investment Planning and Decision-Making- Ms. Kazuko Ishigaki, Risk Knowledge Economist, UNISDR

The main points for this presentation include:

- Japan has a very large disaster management plan (over 500 pages).
- There is a necessity of economic reasoning in communicating the urgency of disaster risk management framework.
- There is need to protect public investment against disaster.
- There is a need for legislation to encourage private sector to manage risk.
• There is sectoral responsibility for critical infrastructure.
• The 5 step process of Evidence-Based Decision Making includes:
  1. Produce Risk Profile.
  2. Choose the return period to cover (political decision).
  3. Measure the impact of policy tools on DRR (avoided loss).
  4. Check the gap between the expected level of DRR and the current level of DRR.
  5. Decide how to address the gap (implement more DRR or transfer risk).
• It was underscored that information must lead to implementation.
• Better governance building is necessary as DRR is cross sectoral and there is a need for
  the mobilization of the private sector (construction and insurance).

15.1 Discussion arising from the Presentation
• It was queried how governments can be convinced to be a part of the projects involving
  PDNA and Strengthening Public Investment in DRR.

  Mr. King informed that seven governments (Anguilla, BVI, Montserrat not part of the
  project) had already signed off but there is still a need for work to be done on the ground.

  • It was stated that there is a challenge with ‘selling’ the project and that such a project
    should be self sustaining.
  • The rationale of preparing for an event that might only happen once every hundred
    years was questioned.

  Mr. Serje commented that the Haiti experience must be considered. He noted that it is
  a political decision to be made, which should consider carefully the hazard map of the
  Caribbean. In order to ensure preparedness a strata of the risk must be examined and a
  comprehensive disaster risk management plan produced.

  • It was underscored the importance of communicating risk, considering the political
    decision to be made and that incremental investments in DRR build up resilience.
• It was stressed that whatever is built needs to be protected and that the analysis provides a language for policy makers through which to consider the necessary decisions. It was reiterated that the forum provided by this workshop is important for creating a network for the advancement of the message.

Day Three- 19th July

16.0 Discussion in Plenary: Key Points/Way Forward

Members of the panel from left Mr. Ian King Programme Manager Disaster and Climate Change Management UNDP Barbados and the OECS), Ms. Rita Missal, BCPR, Mr. Julio Serje Programme Manager UNISDR and Ms. Elizabeth Riley, Deputy Director CDEMA

Chairperson: Mr. Ian King- UNDP

A summary of the days discussion is noted as follows:

• It was stated that good quality of data has already been accumulated in country; the challenge is in the varying repositories.
• Economic models require risk and socio economic data. These models will indicate what can be saved through DRR and the communication of the saving is a good point from which to move forward.

Mr. Serje informed of the following:
• The knowledge of risk is fundamental to defining a comprehensive disaster management risk strategy.
• PDNA and Loss Accounting linkages include baseline data collection.
• The ability to amend/downscale PDNA will allow for addressing small and medium events and reflect a move toward taking ownership.
• There are good possibilities that more synergies may be found and these will allow for the advancement of more comprehensive disaster management planning.
• Setting up of a regional capacity to drive the outputs re Loss Accounting and risk assessment and other relevant technical skills.
• Credibility achieved by capacity and exercising of ability.
• A phased approach could be used but simply completing the exercise for one disaster is acceptable. The recommendation however is for full exercises as there can be no partial Loss Accounting database. It was further noted that:
• Full exercise produces requisite breadth of information for decisions.
• Man-made disasters are very difficult to model.
• The only way to boost DRR investments is through dialogue with Finance and other key Ministries and inclusion in other/under other headings. Ministries of Finance should be included in AAR discussions.
• Importance stressed for sequencing of activities in a manner that rationally builds on and optimizes resources.
• Using the national workshops to introduce the ideas and topics as the intention for the historical data collection is not to be an additional burden.
• Plan for three (3) relatively highly specialized regional workshops; the expectation is for there to be an understanding of the process and output and their application.
December dialogue is being planned for Ministers of Finance. Feedback was requested for the dates for the hosting of the workshop.

The process should not be viewed as difficult or burdensome.

Necessary to set up regional capacity to conduct risk assessments instead of building capacity at individual country level.

**UNDP/WB-GFDRR/UNISDR/EU-ACP-Risk Management Initiative**

Mr. King gave an overview of the particulars and outputs of this project including:

- Regional Workshop – Facilitated at current workshop.
- Data collection should not be an additional burden, try to hire additional people to conduct historical data collection.
- National training workshops.
- Three (3) regional workshops (one on hazards, one on exposures, one on AAL will be conducted will bring together (universities, government employees etc).

Further points elaborated by Mr. King included:

- Need for countries to be interested beyond an interest in standards.
- Data is sometimes more easily available during periods of crisis than at ‘peace time’.
- Importance of post disaster data to recovery was emphasized as well as the role of those persons involved.
- Note the investment required to ensure that recovery is ‘mainstreamed’ in the process.
- The amount of risk which is politically acceptable to retain was noted.
- ‘Policy catching up with technology’ - citizen involvement and its application toward the understanding and management of risk was highlighted.
- Experience reminds that capacity must be tested was noted.
- Working in countries and simultaneously helping to build in-country capacity.
- Progress made in St. Vincent and the Grenadines towards addressing the assessment process.
• The DaLA structures have been applied in the Caribbean for a while and may be more consistent with the PDNA than in other parts of the world.
• Inability to demonstrate hazard impact has been one of the major challenges.
• Need for national actors to be involved in the PDNA analysis and a general need for more engagement.
• A bulk of national loss accounting systems is expected to be completed this year.
• There are areas of overlap which must be identified (especially in country).

Next Steps/Way Forward on UNDP/WB-GFDRR/EU-ACP PDNA Initiative (Activities to be completed)

Seven (7) Eastern Caribbean Countries

Recovery & PDNA Awareness
• Regional workshop (17-19th July 2013).
• National capacity development (reviewing the process involved in utilizing assessment tools and examine how process can be strengthened in pilot countries.
• PDNA training- Detailed trainer of trainers workshop in region and roll out to pilot countries.
• Data collection and entry.
• Development of roster.
• Review & amendment of national post disaster assessment processes and recovery plans.
• Capacity building at regional level- working with UWI Disaster Risk Reduction Centre and develop courses on line/modular basis.
Ms. Missal noted the following:

- Recovery is an understated specialized practice area in which investment must be placed.
- Partners have come together to ensure a credible process and also to reduce overall cost.
- Difficulties with PDNA process often occurs in the determination of priorities.
- Important CDEMA role in lobbying governments.
- Commitment in engaging financial and corporate sector. CDB commitment to leading that engagement.
- Need to extend discussion on man-made hazards.
- Gap analysis is important to the legislative process.
- Supported the view to establish a regional capacity of persons who understand the methodology, conduct training etc to conduct PDNAs.
- Recommended that there should be one clearinghouse for data.
- Suggested that legislation has to be enforced about buildings being constructed in vulnerable areas.

Ms. Riley noted the following points:

- Ensure communication of the process.
- Commitment to framing something practical for Caribbean through work with partners.
- Explicit commitment to engaging physical planners, engineers and architects.
- Issues of trust and credibility must be endorsed and utilized in communication at the level of Cabinet(s).
- Agreed that CDEMA has important role in lobbying governments.
- Need to extend discussion on man-made hazards.
- Important role that countries will play in ensuring cohesion in various project initiatives it is in fact their responsibility.
• While initiatives should be based on country needs and priorities countries must be clear on their needs and priorities and CDEMA is willing to give support to countries with this element.

• Flexible modalities to arrive at results to take into consideration countries specific peculiarities.

• Suggesting a system of horizontal cooperation rather than building comprehensive capacity.

• Need to have institutional dialogue on translating PDNA into the Caribbean context.

• Informed that there is model legislation to address issues related to vulnerable communities but only Montserrat has enforced the clause.

• A number of countries in the Pacific have started to look at risk profiles and it is an intensive process. Cognizant that one of the factors considered is the time taken to implement and so it was recommended to have discussions with SOPAC as it would be insightful to gain their experiences.

• Barbados has embarked on a process of legislation review and there was a consultation meeting to identify stumbling blocks that exist with the existing system with a view to identify changes that can be made within legislation.

In addition, the following points were tabled:

• Consider a hybrid approach in order to build local capacity where countries have resources to contribute to the development of the requisite capacity.

• Need to conduct a gap analysis at the national level.

• Recommended that proper planning and the requisite investment needs a stronger focus in disaster management.

• Little involvement of planning agency. They may be a requirement legislation/policy commitment.

• Recommendation for disaster managers to perform more coordination for optimal functioning of the disaster management system with ministerial technocrats.
- Stumbling blocks in protocols for releasing statistics and this issue has to be addressed in legislation.
- Suggested that there is a need to conduct an assessment of the data that is needed (missing) at country level to assist in conducting PDNAs.
- Need for legislation to be enacted for structures to be demolished in hazardous areas.
- Need for continuous training for Ministry of Public Works employees in conducting assessments as high turnover rate among employees and many of the new ones have not received formal training and resulting in most persons not receiving formal training.
- Difficult to effectively execute programmes, training etc with inadequate budgets being allocated to NDOs. More funds need to be allocated to the NDOs, and it was suggested that CDEMA conducts missions in country with the requisite ministers to discuss this.

17.0 Closing Remarks

Ms. Jacinda Fairholm- UNDP/CRMI

In her closing remarks Ms. Fairholm informed that CRMI is a regional programme dedicated to encouraging exchange of best practices across the region on climate change adaptation risk reduction and involved in developing capacities. CRMI was pleased to collaborate on the workshop and recommended that other countries in addition to the seven (7) pilot ones be included to share experiences and receive information on the assessment process. She reiterated the need for countries to be always prepared for any disaster and to recognize that public investment is the cheaper option and to persuade governments through the use of the data. She stated that the main lesson she learned from the workshop was about the importance of doing risk assessment.

She expressed sincere gratitude to the collaborative partners for organizing the workshop.
Ms. Elizabeth Riley-Deputy Director, CDEMA

Ms. Riley stated that CDEMA was pleased to collaborate on this initiative. She informed that the area of recovery has been recently added to CDEMA’s mandate and one that they are taking seriously. She further reiterated the importance of understanding the risk that countries face in small and large events. In addition, she emphasized the importance of close institutional collaboration on initiatives in the region, the importance of national level leadership on the implementation on processes and stated that CDEMA is fully committed to advancing the recovery agenda among states. Further she informed that CDEMA will be continuing dialogue with partners to roll out the broad scope of their programmatic priority areas.

Ms. Lara Blanco Rothe- Resident Representative (a.i), UNDP Barbados and the OECS

In her closing remarks Ms. Blanco-Rothe referred to the results of research conducted for a Human Development Report in Costa Rica where a representative sample was asked to identify was the most important event or turning point event in their lives the vast majority of respondents and the results indicated natural hazards or emergencies. She stated that higher amount of responses were as a result of the earthquake in 1992.

She opined that it was important to consider the impact that events have on people we work with and the way the various organizations respond when people are faced with crises. She stated that these crises define the opinions that people have, the investments they are willing to make to strengthen the institutions and to their belief in possibilities and the state in general.

She acknowledged that the potential the initiatives have at the national level and expressed that they bring coherence to what is happening at the regional level, making use of the available tools and creating synergies. She expressed gratitude to Mr. Ian King and other UNDP colleagues and to all the collaborative partners and expressed UNDP’s commitment to widening its partnerships.
Mr. Lester Blackett - Director, Nevis Disaster Management Department

Mr. Blackett while speaking on behalf of the participants to all the organizers of the workshop and stated that it was a beneficial process. He impressed on his fellow participants the need to ensure that national initiatives are successful in respective countries.

Participants at the closing of the Workshop
## Appendix 1: List of Participants

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Role/Title</th>
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</thead>
<tbody>
<tr>
<td>Antigua &amp; Barbuda</td>
<td>Hortensia Brooks</td>
<td>Development Planning Coordinator</td>
</tr>
<tr>
<td>Antigua &amp; Barbuda</td>
<td>Fillmore Mullin</td>
<td>Director, National Office for Disaster Services</td>
</tr>
<tr>
<td>Dominica</td>
<td>Anderson Parillon</td>
<td>Economist/UNDP Focal Point</td>
</tr>
<tr>
<td>Dominica</td>
<td>Don Corriette</td>
<td>National Disaster Coordinator</td>
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<tr>
<td>Grenada</td>
<td>Terence Walters</td>
<td>National Disaster Coordinator a.i NADMA</td>
</tr>
<tr>
<td>Grenada</td>
<td>Shari Joseph</td>
<td>Policy Analysis</td>
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<tr>
<td>Saint Lucia</td>
<td>John Calixte</td>
<td>Deputy Permanent Secretary, Ministry of Finance, Economic Affairs, Planning and Social Security</td>
</tr>
<tr>
<td>Saint Lucia</td>
<td>Karen Augustine</td>
<td>Chief Physical Planner, Ministry of Physical Development</td>
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<tr>
<td>St. Kitts</td>
<td>George Gilbert</td>
<td>Director of Public Works</td>
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<tr>
<td>Nevis</td>
<td>Lester Blackett</td>
<td>Director, Nevis Disaster Management Department</td>
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<tr>
<td>St. Vincent</td>
<td>Trelson Mapp</td>
<td>Economist, Central Planning Division</td>
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<tr>
<td>St. Vincent</td>
<td>Michelle Forbes</td>
<td>Deputy Director NEMO</td>
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<tr>
<td>Barbados</td>
<td>Kerry Hinds</td>
<td>DEM</td>
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<td>Trinidad &amp; Tobago</td>
<td>Shelly Bradshaw</td>
<td>ODPM</td>
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<tr>
<td>Trinidad &amp; Tobago</td>
<td>Asha Kambon</td>
<td>Consultant</td>
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<tr>
<td>Anguilla</td>
<td>Melissa Meade</td>
<td>Director, Department of Disaster Management</td>
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<tr>
<td>British Virgin Islands</td>
<td>Evan Inniss</td>
<td>Deputy Director, Department of Disaster Management</td>
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<tr>
<td>Montserrat</td>
<td>Billy Darroux</td>
<td>Director, Disaster Management Coordination Agency</td>
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<td>Jamaica</td>
<td>Richard Thompson</td>
<td>Director General a.i ODPEM</td>
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<tr>
<td>Turks and Caicos Islands</td>
<td>Virginia Clerveaux</td>
<td>Director Department of Disaster Management and Emergencies</td>
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<td></td>
<td>Rosemary Lall</td>
<td>UNDP Trinidad</td>
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<td>Melanie S. Kappes</td>
<td>World Bank</td>
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<td></td>
<td>Rita Missal</td>
<td>BCPR</td>
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<td></td>
<td>Jacinda Fairholm</td>
<td>UNDP Panama/CRMI</td>
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<td>Julio Serge</td>
<td>UNISDR</td>
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<td>Raul Salazar</td>
<td>UNISDR</td>
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<tr>
<td>Kazuko Ishigaki</td>
<td>UNISDR</td>
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<td>Mark Durant</td>
<td>Economist, Ministry of Economic Affairs</td>
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<td>Wayne Davis</td>
<td>Barbados Statistical Services</td>
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<td>Pat Barrow</td>
<td>Housing Lands and Rural Development</td>
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<td>Ian King</td>
<td>UNDP Barbados &amp; the OECS</td>
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<td>Lara Blanco</td>
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<td>Marlon Clarke</td>
<td>UNDP Barbados &amp; the OECS</td>
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<tr>
<td>Ronald Jackson</td>
<td>CDEMA</td>
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<td>Elizabeth Riley</td>
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<td>Robert Harewood</td>
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<tr>
<td>Valerie Isaac</td>
<td>CDB</td>
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<td>Mrs. Xiomara Archibald</td>
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<tr>
<td>Ann-Marie Warner</td>
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<tr>
<td>Nathalie Hutchinson</td>
<td>CIDA</td>
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<tr>
<td>Dr. David Farrell</td>
<td>CIMH</td>
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<tr>
<td>Adanna Robertson-Quimby</td>
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<tr>
<td>Frederick Unterrreiner</td>
<td>UNICEF</td>
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<tr>
<td>Clive Lorde</td>
<td>USAID/OFDA</td>
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<td>Steve Hillier</td>
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<td>Cletus Springer</td>
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<td>Anthony Robert</td>
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<td>Jawara Wells</td>
<td>IT Support</td>
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<tr>
<td>Cherri-Ann Dixon</td>
<td>Rapporteur</td>
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<tr>
<td>Holford</td>
<td>Rapporteur</td>
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<tr>
<td>Javier Reid</td>
<td>Assistant Rapporteur</td>
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Appendix 2: Workshop Agenda

Workshop on strengthening public investment in disaster risk reduction and Post Disaster Needs Assessment
Aquatica Radisson, Bay Street, Barbados
Dates – 17 – 19 July

Opening Session

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Representative</th>
</tr>
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<tbody>
<tr>
<td>9.00 - 9.05</td>
<td>Welcome and Introductions</td>
<td>UNDP, MC</td>
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<tr>
<td>9.05 – 9.15</td>
<td>Remarks</td>
<td>Ronald Jackson, Executive Director CDEMA</td>
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<tr>
<td>9.15 – 9.25</td>
<td>Remarks</td>
<td>Lara Blanco, Resident Representative a.i., UNDP Barbados and the OECS</td>
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<td>9.25 – 9.40</td>
<td>Remarks</td>
<td>National representative - TBC</td>
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<td>9.40 – 10.00</td>
<td>Setting the context for the workshop</td>
<td>UNDP</td>
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# Day 1 17 July

## Overview and Early Recovery

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<tr>
<th>DAY  1</th>
<th>Topic</th>
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<tbody>
<tr>
<td>9:00 – 10:00</td>
<td>Opening Session</td>
<td>UNDP</td>
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<tr>
<td>10:00 - 10:15</td>
<td>Coffee Break</td>
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<tr>
<td>10:15 – 12:45</td>
<td>Session 1B - Chair – Elizabeth Riley</td>
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<tr>
<td>10:45</td>
<td>CDM Programmatic Priorities</td>
<td>Joanne Persaud, CDEMA</td>
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<td></td>
<td>• Post 2012 CDM Strategy and Results</td>
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<td>• Recovery within the post 2012 CDM Strategy</td>
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<td>11:16</td>
<td>Setting the context for PDNA</td>
<td>Asha Kambon</td>
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<td>Overview of Post Disaster Recovery in the context of Caribbean islands</td>
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<td>• From assessments to Early Recovery</td>
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<td>• Experience in the Caribbean with the development and application of DaLAs</td>
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<td>12:05</td>
<td>PDNA Institutional Background:</td>
<td>Rita Missal – BCPR</td>
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<td>Institutional Agreements</td>
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<td>• What is PDNA</td>
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<td>Protocols for cooperation</td>
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<tr>
<td>1:03</td>
<td>National Government’s leadership and role in PDNAs and Recovery</td>
<td>Rita Missal - BCPR, Min of Finance / Planning Rep (tbc) NDO</td>
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<tr>
<td></td>
<td>(Panel Discussion)</td>
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<tr>
<td></td>
<td>Coordination, Sector assessment, Recovery programme development and implementation</td>
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<td></td>
<td>• What are / should be the roles of the respective national</td>
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<tr>
<td>Time</td>
<td>Session</td>
<td>Speaker/Presenter</td>
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<tr>
<td>2:35-3:05</td>
<td>ACAPS</td>
<td>Lars Peter Nissen</td>
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<td>1:40</td>
<td>Lunch Break</td>
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<tr>
<td>3:09-4:18</td>
<td>Introduction: The conceptual framework of the PDNA</td>
<td>Rita Missal - BCPR</td>
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<td></td>
<td>Tea Break</td>
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<tr>
<td>4:36</td>
<td>Sector examples:</td>
<td>Rita Missal - BCPR</td>
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<tr>
<td>5:15-5:42</td>
<td>What do these initiatives mean in the Context of the CDM Strategy and National development Plans?</td>
<td>Facilitated Discussion</td>
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</tbody>
</table>
### Day 2 18 July

**DRR Mainstreaming tools**

<table>
<thead>
<tr>
<th>DAY 2</th>
<th>Topic</th>
<th>Resource persons</th>
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</thead>
<tbody>
<tr>
<td>9:00 – 12:30</td>
<td>Session 2 A – Chair Mr. Richard Thompson</td>
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<tr>
<td>9:00 – 9:15</td>
<td>Review of Day 1</td>
<td>Rapporteur / Chairs</td>
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<tr>
<td>9:15 – 10:30</td>
<td>Preparedness for Recovery and experience sharing on post disaster recovery</td>
<td>BCPR, Govts</td>
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<td>Institutional arrangements</td>
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<td>Standards and guidelines</td>
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<td>Inclusive approach, coordination arrangements including ER cluster system</td>
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<td>Financial mechanisms</td>
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<td>Monitoring and evaluation.</td>
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<tr>
<td>10:30-10:45</td>
<td>Tea Break</td>
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<tr>
<td>10:45-11:30</td>
<td>Chairperson: Ms. Jacinda Fairholm</td>
<td>UNISDR, WB</td>
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<td>Understanding risk for DRM applications:</td>
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<td></td>
<td>Initiating a regional risk assessment and financing initiative</td>
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<tr>
<td>11:30-12:30</td>
<td>The risk financing and transfer initiative</td>
<td>UNISDR, WB</td>
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<tr>
<td></td>
<td>Stakeholders, Project requirements, timeline</td>
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<tr>
<td>12:30 - 13:30</td>
<td>Lunch Break</td>
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<tr>
<td>Time</td>
<td>Activity</td>
<td>Presenter/Organizer</td>
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<tr>
<td>13.30 – 17.30</td>
<td><strong>Session 2 B – Ms. Michelle Forbes</strong></td>
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</tbody>
</table>
| 13:30 - 14:15 | **Disaster loss databases**  
Implementation: Overview, Demo, Results, Stakeholders, Project requirements, timeline. Round Table | UNISDR              |
| 14.15 – 14.30 | **Dewetra Platform**  
Overview and relevance to monitoring and managing disaster (hydromet) risk | CIMH                |
| 14.30 – 15.00 | **Discussion on assessment and monitoring tools – opportunities and challenges** |                     |
| 15:00 – 15:15 | **Tea Break**                                                           |                     |
| 15:15 – 16:15 | **Chairperson: Mr. Filmore Mullin**  
**Assessing risk in the countries: Probabilistic risk Profiles**  
Implementation: Overview, Results, Global Risk Update inputs, Project requirements, timeline | UNISDR              |
| 16:15 -17:30 | **Incorporating risk management into public investment planning and decision making**  
Stakeholders, activity requirements, timeline - Questions | UNISDR, Govts, UNDP |
### Day3 19 July

**Review and Planning**

<table>
<thead>
<tr>
<th>DAY 3</th>
<th>Topic</th>
<th>Resource persons</th>
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</thead>
<tbody>
<tr>
<td>9:00 – 9:15</td>
<td>Review of Day 2</td>
<td>Rapporteur / Chairs</td>
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<tr>
<td>9:15 – 10:00</td>
<td>Next Steps/Way Forward</td>
<td>Mr. Ian King</td>
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<td>10:00-10:15</td>
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<td>10:15 -12:30</td>
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<td>12:30 -</td>
<td>Lunch Break</td>
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<td>2:00</td>
<td>Vote of Thanks</td>
<td>Mr. Lester Blackett</td>
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</table>

**Conclusion: Way forward for implementing Early Recovery and DRR Mainstreaming**

- How to plan to upscale the initiatives?
- Identifying challenges and gaps
- Recommendations, Good Practice and Next Steps, Opportunities for synergies

All

Mr. Lester Blackett
Appendix 3: List of Presentations

Presentation 1- CDM Programmatic Priorities
Presentation 2- Setting the Context for PDNA
Presentation 3- PDNA Institutional Background
Presentation 4- ACAPS
Presentation 5- National Government’s Leadership and Role in PDNA
Presentation 6- The Conceptual Framework of the PDNA and Sector Examples
Presentation 7- Preparedness for Recovery and Experience Sharing on Post Disaster Recovery
Presentation 8- Understanding Risk for DRM Applications
Presentation 9- Disaster Loss Databases
Presentation 10- Dewetra Platform
Presentation 11- Assessing Risks in the Countries: Probabilistic Risk Profiles
Presentation 12- Incorporating Risk Management into Public Investment Planning and Decision-Making