

# Rapid Review of the Regional Response in the Hurricanes Irma and Maria Events

October 2017 | Final Report



**CDEMA**  
C A R I B B E A N  
D I S A S T E R E M E R G E N C Y  
M A N A G E M E N T A G E N C Y

*Resilient States · Safer Lives*



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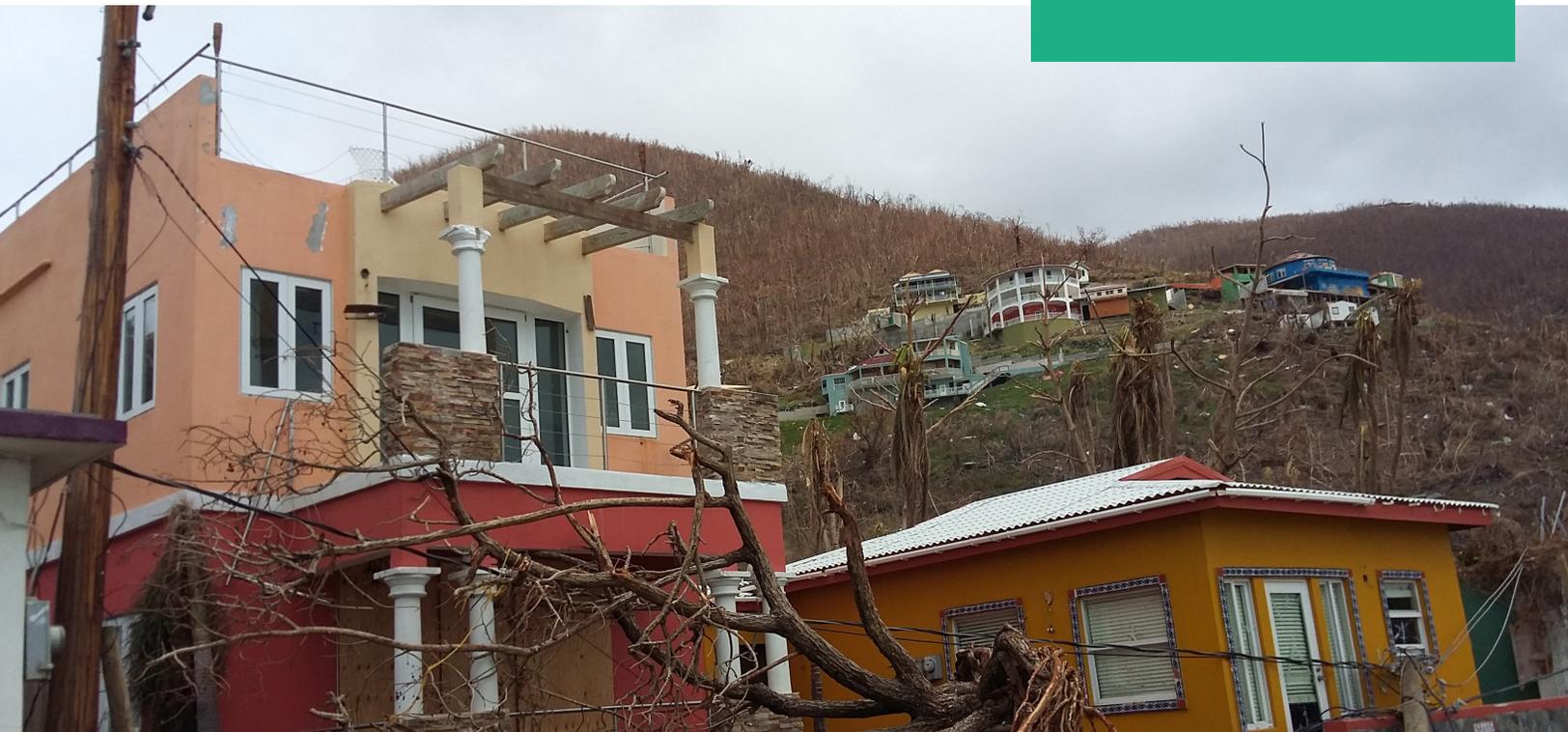
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# Acknowledgment

The Rapid Review of the Regional Response Mechanism (RRM) support represents our commitment to accountability and transparency in the Humanitarian Assistance support offered to our Participating States in the Caribbean Community. The results highlight the necessary empirical information which guides its continued enhancement and attention to providing quality services to the people of the Caribbean. In that regard, the Caribbean Disaster and Emergency Management Agency (CDEMA) would like to express immense gratitude to the Government of the UK through the Department For International Development (DFID), Government of Canada through Global Affairs Canada (GAC) and the United Nations Children’s Fund (UNICEF) for the ready support and resources extended in ensuring that we could undertake this evaluative exercise.

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Ronald Jackson, Executive Director  
Caribbean Disaster Emergency Management Agency (CDEMA)



# Table of Contents

<b>List of Acronyms</b>	<b>6</b>
<b>Executive Summary</b>	<b>8</b>
1. Context	8
2. Methodological Approach	8
3. Findings	9
4. General Conclusions	9
5. Recommendations	10
6. Now Actions	12
7. Action Framework For Enhancing The Regional Response Mechanism	12
<b>Rapid Review</b>	<b>15</b>
<b>1.0 Background</b>	<b>15</b>
1.1 Regional Response Mechanism	15
1.2 Purpose And Objective Of The Rapid Review	15
<b>2.0 Methodological Approach To The Rapid Review</b>	<b>16</b>
2.1 Limitations Of The Rapid Review	18
<b>3.0 Irma And Maria: The Systems And Impact In Antigua And Barbuda, The Virgin Islands And Dominica</b>	<b>19</b>
<b>4.0 Findings</b>	<b>22</b>
1. Appropriateness And Relevance	23
2. Connectedness And Sustainability	28
3. Coordination	31
4. Coverage	34
5. Grand Bargain Commitments	38
<b>5.0 General Conclusions</b>	<b>41</b>
<b>6.0 Now Actions</b>	<b>42</b>
<b>7.0 Action Framework For Enhancing The Regional Response Mechanism</b>	<b>42</b>
<b>List Of Figures</b>	
Figure 1: The Regional Response Mechanism (Rrm)	16
Figure 2: Path Of Hurricane Irma In The Caribbean	19
Figure 3: Damage By Parish And Food Distribution: Dominica	36
Figure 4: Damage By Parish And Water Distribution: Dominica	36
<b>List Of Tables</b>	
Table 1: Estimated Damage And Losses For The Rapid Review Countries	20
Table 2: Level Of Activation For The Regional Response Mechanism	21
<b>List Of Appendices</b>	
Appendix I – Rapid Review Terms Of Reference	49
Appendix Ii – List Of Persons Interviewed	58
Appendix Iii – Guidance Questions	64
Appendix Iv –List Of Documents Consulted	67
Appendix V –References	70

# List of Acronyms



ABDT	Antigua and Barbuda Department of Tourism
ACE	Accumulated Cyclone Energy
ADM/FIN	Administration and Finance
BVI	The Virgin Islands/British Virgin Islands
CANTO	Caribbean Association of National Telecommunication Organizations
CARICOM	Caribbean Community
CARITAS	CARITAS Antilles
CDaC	Communicating with Disaster Affected Communities
CDAC	CARICOM Disaster Assessment and Coordination Team
CDEMA	Caribbean Disaster Emergency Management Agency
CDM	Comprehensive Disaster Management
CDLOGU	CDRU Logistics Unit
CDPF	Commonwealth of Dominica Police Force
CDRU	CARICOM Disaster Relief Unit
CERF	Central Emergency Revolving Fund
CIMH	Caribbean Institute for Meteorology & Hydrology
COST	CARICOM Operational Support Team
CU	Coordinating Unit
CTO	Caribbean Tourism Organisation
DFID	Department for International Development
DDM	Department of Disaster Management
DDO	District Development Officer
DM	Disaster Management
DPHCS	Director of Primary Health Care Services
DRRC	Disaster Risk Reduction Centre
EC	Eastern Caribbean
ECDG	Eastern Caribbean Disaster Group
EOC	Emergency Operations Centre
EU	European Union
EX GROUP	Executive Group
GAC	Global Affairs Canada
HEB	High Energy Biscuits
IDP	Internally displaced persons
IFRC	International Federation of Red Cross and Red Crescent Societies
IOM	International Organization for Migration
JDF	Jamaica Defence Force
MIAH	International Mechanisms of Humanitarian Assistance
MIRA	Multi-cluster/sector Initial Rapid Needs Assessment

# List of Acronyms Cont'd



MoHE	.....	Ministry of Health and Environment
MoHSD	.....	Ministry of Health and Social Development
MOU	.....	Memorandum of Understanding
MREs	.....	Meals Ready to Eat
NDO	.....	National Disaster Office
NDE	.....	National Disaster Executive
NODS	.....	National Office of Disaster Services
NEOC	.....	National Emergency Operations Centre
OCHA	.....	Office for the Coordination of Humanitarian Affairs
ODM	.....	Office of Disaster Management
OECS	.....	Organisation of Eastern Caribbean States
OT	.....	Overseas Territory
PAHO	.....	Pan American Health Organization
PDNA	.....	Post Disaster Needs Assessment
PIN	.....	People In Need
PS	.....	Participating State
RCC	.....	Regional Coordination Centre
RNAT	.....	Rapid Needs Assessment Team
RR	.....	Rapid Review
RRM	.....	Regional Response Mechanism
SAR	.....	Search and Rescue
SIDS	.....	Small Island Developing States
SOP	.....	Standard Operating Procedures
SRC	.....	Seismic Research Centre
SRFP	.....	Sub-regional Focal Point
TAC	.....	Technical Advisory Committee
TOR	.....	Terms of Reference
UK	.....	United Kingdom
UN	.....	United Nations
UNDAC	.....	United Nations Disaster Assessment and Coordination
UNICEF	.....	United Nations Children's Fund
USD	.....	United States Dollars
VSAT	.....	Very-small-aperture terminal
WCDG	.....	West Caribbean Donor Group
WFP	.....	World Food Programme

# Executive Summary

## 1 CONTEXT

During the month of September 2017, between the 5th and 20th, the Caribbean region was impacted by two major sequential Category 5 hurricane systems, Irma and Maria, resulting in multi-island impacts. Irma became a category 5 hurricane in the Western Atlantic Ocean on Tuesday September 5, 2017 with maximum sustained winds near 185 mph. It impacted the CDEMA Participating States of Anguilla, Antigua and Barbuda, The Virgin Islands (BVI), Dominica, St. Kitts and Nevis, Montserrat the northern districts of Haiti, Turks and Caicos Islands and the south-eastern islands of the Bahamas. A combination of strong winds, storm surge and intense rainfall, resulted in the loss of forty (40) lives and significant damage to homes, critical infrastructure and other sectors throughout the affected islands.

Whilst hurricane Irma was affecting the northern CDEMA Participating States, Hurricane Jose, a Category 3 cyclone, posed a threat to the Northern Leeward Islands but fortunately did not result in any impacts. However, the threat posed by Jose immediately following the impact of Irma, caused the Government of Antigua and Barbuda to evacuate the population of Barbuda.

Maria became a category 5 hurricane near the Leeward Islands on Monday September 18th, 2017. It rapidly progressed from a tropical depression to a major hurricane (Category 3) within 48 hours and, subsequently to a catastrophic hurricane (Category 5) 8 hours later impacting Dominica at approximately 9:35 pm on September 18th, with wind speeds of 155 mph. It then impacted St. Kitts and Nevis, Antigua and Barbuda and The Virgin Islands (BVI) between September 19 and 20 2017.

The outcome of the sequential and multi-island impacts of Hurricanes Irma and Maria resulted in an operational environment and experience that tested the Regional Response Mechanism (RRM).

## 2 METHODOLOGICAL APPROACH

A Rapid Review (RR) provides a space for witnessing plans in practice during an emergency. This unique capture of information can inform ongoing actions, future evaluations and operations and system-wide learning. As appropriate, the Rapid Review Report drew on work undertaken as part of the Rapid Needs Assessment, Post Disaster Needs Assessment, ground truthing mission, beneficiary surveys and available situation reports.

Countries chosen for fieldwork were Dominica, a sovereign state extensively damaged by Hurricane Maria; The Virgin Islands (BVI), an overseas territory of the United Kingdom which was extensively damaged by Irma and; Antigua and Barbuda, a sovereign multi-island state which was impacted by Irma and also a Sub-Regional Focal Point of the CDEMA system. The selected states provide a mix of the jurisdictional spaces encountered in the CDEMA system as well as varied experiences and impacts in which the RRM operations were being reviewed. A set of guidance questions around five issues – appropriateness and relevance; connectedness and sustainability; coordination; coverage and grand bargains was used to frame the review. Focus groups were convened with persons involved in the NEOCs, in this case a specific set of questions was developed and used.

In undertaking the Rapid Review, the Team used multiple methods to triangulate its findings to ensure that these are based on a good understanding of the current context. These methods included:

1. **Key informant interviews:** Between 10 November and 4 December 2017, the Rapid Team interviewed approximately 70 persons including senior political and technical government officials, operations staff of RRM entities and impacted persons. Forty-eight percent of the key informants were female and 52% male. Sixty-two percent of the key Informants were local and regional and 38% from international agencies. The interviewees were selected through a mixture of purposive and convenience sampling. This was driven by the fluid nature of those involved in the operational space.

# Executive Summary Cont'd

2. **Interviews** of operational personnel in Antigua and Barbuda, The Virgin Islands (BVI) and Dominica during the period 11-19 November 2017.
3. **Beneficiary interviews:** The Team undertook limited direct beneficiary interviews in shelters in the impacted communities of Concorde, Gaulette, Kalinago Territory and Salybia in Dominica. Beneficiary information was also obtained via secondary sources including the data generated by Ground Truth, a firm hired by UK DFID for this purpose.
4. **Documents Review:** The Team reviewed more than 124 documents (Appendix IV) related to the structure and operations of the RRM, the characteristics of the impacting systems, the impact on the affected states and various assessment and operations reports.

## 3 FINDINGS

The findings are captured under five main assessment themes:

### I. Appropriateness and Relevance

- a. Tailoring of humanitarian activities to local needs, increasing ownership, accountability and cost-effectiveness.
- b. Assessing whether the humanitarian operations are in line with local needs and priorities (as well as government and donor policy).

### II. Connectedness and sustainability

- a. Ensuring that activities of a short-term emergency nature are carried out in a context that takes longer-term and interconnected problems into account.
- b. Adapted from the sustainability concept - interventions should support longer-term goals such as recovery or development, and eventually be managed without donor input.

### III. Coordination

- a. Systematic use of policy instruments (strategic planning, gathering data and managing information, mobilising resources etc.) to deliver humanitarian assistance in a cohesive and effective manner.

### IV. Coverage

- a. Coverage is the need to reach major population groups facing life threatening conditions, wherever they are.

### V. Grand Bargain Commitments

- a. Improving the effectiveness and efficiency of humanitarian action.
- b. Working with local and national responders; cash-based assistance; reducing duplication and management costs; joint needs assessment; accountability to beneficiaries; multi-year planning and flexible funding; simplifying and harmonizing reporting requirements; bridging the humanitarian-development divide.
- c. Localizing the humanitarian response and the capacity of local civil society in humanitarian action, in order to better address the needs of affected populations.

## 4 GENERAL CONCLUSIONS

The RRM is an evolving operational mechanism with an architecture for coordinating humanitarian support to impacted states. It has demonstrated value and relevance to its Participating States (PS) and partners.

The full realization of the RRM potential is constrained by persistent challenges in the logistics platform for timely delivery of personnel and supplies and by limited and unpredictable funding.

There is need for a revisit of the funding model, task sharing and the rationalization of its service delivery components with a lens on efficiency.

The capacity of PS on which the RRM is platformed is highly variable thereby generating uncertainty in its service delivery.

Strategies for accelerating the adoption of agreed standards need to be revisited. The Irma and Maria experiences suggest this is an item of urgency and for a robust discussion at the political level on the position of acceptable risks.

Meeting the surge capacity needs of the RRM in times of multi-island and catastrophic events is an issue of priority and urgency given the identified challenges and a future scenario of increasing major impacting events.

# Executive Summary Cont'd

Stakeholder analysis and partner engagement strategies are needed to better frame collaboration opportunities and capability enhancement, especially for surge capacity.

The international humanitarian community, development partners and donors should work with the CDEMA system to help address capacity and capability gaps in ex-ante interventions and avoid the inclination to replace or duplicate the RRM services during ex-post operations. CDEMA should also look for partnership opportunities through which other organisations provide added technical skills and capacity in delivering the RRM services.

Though this was a first for two consecutive impacting category 5 hurricane events characterizing Irma and Maria as “Worst Case Scenario” will require more scientific input. The support of the UWI Climate Studies Group in generation of future or other scenarios for RRM planning is strongly encouraged.

Many of the issues raised in this report were flagged in many CDEMA events reviews since 2010. This suggests more investment is required in implementing lessons identified, robust policy oversight and support.

The RR team is of the view that the issues identified relate to the fundamentals of the RRM resourcing and operational environment which are exacerbated by major events, whether in single or multiple states.

There is also a general need to better recognize the reality of the limited national capacity and revisit the RRM assumptions around this. It may require a rethink of the focus of RRM operations planning and deployment strategies.

The Rapid Review Report includes an action framework with suggested key actions, roles and timeframes for ensuring that the RRM can deliver on its objectives in helping to mitigate the dislocation and discomfort of communities impacted by hazards.

## 5 RECOMMENDATIONS

### 1. Appropriateness and Relevance - Improvements for a more Appropriate Regional Response Mechanism

- a. **Promote greater awareness, understanding and shared expectations of the RRM at all levels (PS including political players and NDOs as well as partner organisations to the RRM).**
- b. **Review instruments and tools for better alignment with the needs which arise in its Participating States from the impacts of major or extreme events.** This could include increasing the size and duration of the COST and CDAC deployments, informed by scenario planning.
- c. **Undertake a RRM stakeholder analysis and engagement strategy to inform competencies, strengths/interests that may be proactively integrated into the RRM to improve the timeliness of information and access to surge capacity.** The CU could also identify activities which could be carried out remotely by persons not wishing to be deployed but who are willing to help.

Also the rationalizing of the RNAT and the CDAC; review the process for the formal adoption and use of RNAT generated information; revisiting the RNAT data focus to include both the assessment of beneficiaries' needs and damage.

- d. **Develop options for integrating other Caribbean and Latin America countries and actors into the RRM to address surge capacity deficits especially in logistical assets.**
- e. **Review the emergency communications architecture at all levels of the system and implement enhancement measures identified, to include redundancy.**
- f. **Undertake an overhaul of the funding arrangements of the RRM at the national and regional levels including fuller engagement of the private sector.**
- g. **Undertake an assessment of information management within the RRM with a lens on improving information sharing, technology application and capacity enhancement needs.**

# Executive Summary Cont'd

## **h. Undertake After Action Reviews in all of the impacted states and share lessons learned on the planning for and managing of severe and catastrophic events.**

These should be shared and discussed within the CDEMA TAC, CDRU, and ECDG and similar fora.

## **2. Connectedness and Sustainability**

a. Review existing needs assessment tools and processes to ensure responsiveness to the needs of the impacted persons in response, relief and recovery interventions. The intent is to minimize the number of parallel assessments, generate more disaggregated data and services that respond to the affected. The National Donations and Relief Policy Guidelines and practice should be a starting point.

b. One needs to know if the relief recovery transition is included, if the states have adopted it and whether other humanitarian partners are familiar with these.

**c. Enhance investment in recovery planning at the national level.** The process, roles and responsibilities in the transitioning from relief to recovery should be explicitly addressed.

**d. Include debris management and environmental sustainability considerations in national DRM plans.** Such considerations should also be included in the plans of humanitarian organisations.

## **3. Coordination**

**a. Promote greater awareness and understanding of the RRM at all levels.** This must target all stakeholders including Participating States, political players and NDOs as well as partner organisations to the RRM. It also includes the RRM better understanding other organisations and their roles.

**b. Undertake a RRM stakeholder analysis and engagement strategy to inform competency, strengths/interests that may be proactively integrated into the RRM for improved timeliness of information and access to surge capacity.**

**c. Urgently address deficits in capacity, especially for transportation, to include bi-lateral or other access arrangements with non-CDEMA states in the larger Caribbean and the private sector.**

**d. Review and strengthen the emergency communications architecture of the RRM with a lens on redundancy.** It should be undertaken against the standards of the Regional Emergency Communications Planning Guide which itself may need updating. The proposed Information and Technology Committee of the RRM could be asked to oversee this action.

**e. Undertake an overhaul of the funding arrangements of the RRM at National and regional levels including considerations for the fuller engagement of the private sector.**

**f. Strengthen the MOU between CDEMA and OCHA to include the establishment of operational procedures to promote better operational coordination.**

**g. Develop or enhance the socio-economic profiles of the states** to inform baselining for response and relief operations.

**h. Utilize existing disaster simulation exercise programmes to promote cross-training of CDEMA/OCHA staff and partners in surge capacity support protocols and operations.**

## **4. Coverage**

**1. Undertake a review of the interface of impact and needs assessments in the framing of humanitarian interventions in the RRM, as matter of urgency.** This necessitates looking closely at the roles of the CDRU, RNAT, CDAC and COST and the existing mechanisms at the national level for relief distribution and management.

**2. Reposition the RRM as a beneficiary system that is centred on the affected.** Clear processes for the assessing and monitoring of needs and their change should be rolled out to include complaints and reporting facilities.

**3. Undertake a review of the cash based humanitarian assistance programmes across the CDEMA affected Participating States** an immediate first step in framing a forward looking approach for its further development in the RRM.

# Executive Summary Cont'd

## 5. GRAND BARGAIN COMMITMENTS

1. Enhance and/or elaborate processes for the management of humanitarian actors in National and Regional Contingency Plans. Consideration should be given to the handling through immigration, registration arrangements, information on the national disaster management system and tasking.
2. **Initiate a study of the financing of the humanitarian operations of Irma and Maria as a priority.** This would also provide a baseline for monitoring the financing structure of humanitarian actions going forward.
3. **Initiate lobbying for CDEMA's inclusion in the list of trusted agents for access to donor humanitarian financing.**
4. **Establish an Irma and Maria Research and Good Practices Initiative as a central platform for a Learn to Enhance Programme.** This could start with the documentation of the good practices identified and also a study of the cash based programmes and the role of the new humanitarian actors in the region.
5. **Enhance collaboration among the CDEMA OCHA, IFRC and other RRM stakeholders to launch an awareness and discussion initiative on the Agenda for Humanity and the related Commitments coming out of the 2016 World Humanitarian Summit**

## 6 NOW ACTIONS

One of the key outcomes of the RR was to identify actions that could enhance the ongoing operations. Based on field observations and discussions, in the states visited, the Team identified nine suggestions for immediate action. These **NOW ACTIONS** are listed below.

## 7 ACTION FRAMEWORK FOR ENHANCING THE REGIONAL RESPONSE MECHANISM

The RR Team has offered an action framework for improving the Regional Response Mechanism building on the NOW Actions

and recommendations. These actions are primarily drawn from the information and suggestions provided by Key Informants, feedback from the RSC and documents reviewed. Given the emerging new norms for hurricane intensity and magnitude from the forecast modelling, addressing the gaps in the RRM is both urgent and important. The enhancement actions are presented at the levels of key stakeholder and service elements of the RRM.

The next hurricane season is less than six months away and there are key areas to be addressed in the short term. The reality of the consultation, resource mobilisation and implementation processes means that some enhancement interventions will require more than six months, consequently a two-year RRM Enhancement Programme is being proposed.

Subsequent to the acceptance of the RR report, it is also recommended that a RRM Enhancement Committee of the CHC, be established to consider the Action Framework, prioritize the actions to be addressed, draft an implementation plan and develop a related budget and identify resourcing strategies. The idea is to promote the synergies of humanitarian and development investments.

To accelerate efforts to integrate technology in the RRM and to promote innovation in its operations a Technology and Innovation Committee of the RRM should be established. This can be comprised of personnel from regional organisations, the private sector, development partners, Participating States and Civil Society.

It is anticipated that the implementation of the Action Framework will also draw on and inform the outcomes of the After Actions Reviews that will be taking place in the coming months. The completion of these at soonest is strongly encouraged. Consideration will also have to be given to how to integrate the findings of the RR with the proposed RRM Strengthening Consultancy planned by the CDEMA CU.

# Executive Summary Cont'd

In suggesting the lead and supporting actors for the RRM enhancements proposed the RR Team sought as far as practical to work within the existing governance structures. Forty-eight Action points, across seven areas, are suggested for the enhancement of the RRM generally, and specifically for its guidance tools, services and key stakeholders.



1

Psycho-social support for operational staff and a monitoring program over the next 6 months at least

2

More deliberate attention to be paid to development and operationalization of welfare management programmes for targeted relief personnel

3

Establishment or finalization of beneficiary monitoring and assessment mechanisms

4

Restoration of emergency communications infrastructure with a lens on redundancy

5

Improved documentation and record keeping for AARs, lessons learning and accountability reporting

6

investments in hardened NEOC and operations coordination

7

Re-examine cash, voucher and livelihood revitalization initiatives for sustainability, impact on cultures and economies

8

Revisit the assumptions for national operational readiness in context of the rapid onset of hydro-meteorological systems and bearing in mind forecast errors

9

Develop public information and education programmes for messaging the transition to recovery and managing expectations, with facilities for feedback from citizens and the impacted (including vulnerable)



# Rapid Review Of The Regional Response To The Hurricanes Irma And Maria Events

## 1.0 BACKGROUND

During the month of September 2017, between the 5th and 20th, the Caribbean region was impacted by two major Category 5 sequential hurricane systems, Irma and Maria, resulting in multi-island impacts.

Irma became a Category 5 hurricane in the Eastern Atlantic Ocean on Tuesday September 5, 2017 with maximum sustained winds near 185 mph. It impacted the CDEMA Participating States of Anguilla, Antigua and Barbuda, The Virgin Islands (BVI), Dominica, St. Kitts and Nevis, Montserrat the northern districts of Haiti, Turks and Caicos Islands and the south-eastern islands of the Bahamas. A combination of strong winds, storm surge and intense rainfall, resulted in the loss of 40 lives and significant damage to homes, critical infrastructure and other sectors throughout the affected islands. Whilst hurricane Irma was affecting the northern CDEMA Participating States, Hurricane Jose a Category 3 cyclone posed a threat to the Northern Leeward Islands but fortunately did not result in any impacts. However the threat posed by Jose immediately following the impact of Irma, influenced the Government of Antigua and Barbuda to evacuate the population of Barbuda.

Maria became a Category 5 hurricane near the Leeward Islands on Monday September 18th, 2017. It rapidly progressed from a tropical depression to a major hurricane (Category 3) within 48 hours and, subsequently to a catastrophic hurricane (Category 5) eight (8) hours later impacting Dominica at approximately 9:35 pm on September 18th, with wind speeds of 155 mph. It then impacted St. Kitts and Nevis, Antigua and Barbuda and The Virgin Islands (BVI) between September 19 and 20 2017.

The outcome of the sequential and multi-island impacts of Hurricanes Irma and Maria resulted in an operational environment and experience that tested the capability and capacity of the Regional Response Mechanism (RRM).

### 1.1 Regional Response Mechanism

The Regional Response Mechanism is an arrangement for the coordination of disaster response among CDEMA Participating States, Regional and International Agencies to an impacted member, supported by Standard Operating Procedures (SOPs), plans, MOUs, guidelines and legislation. The CDEMA Coordinating Unit, headquartered in Barbados, is the focal point for managing the mechanism and supported by four Sub-Regional Focal Points **in Jamaica, Antigua and Barbuda, Barbados and Trinidad and Tobago**. The RRM is underpinned by the principles of sovereignty, solidarity, partnership and embraces international humanitarian principles (CDEMA 2017). The RRM is a tiered surge capacity facility for impacted CDEMA Participating States.

### 1.2 Purpose and Objective of the Rapid Review

As part of its ongoing efforts to measure, monitor and learn, the CDEMA CU commissioned a Rapid Review (RR) of the operations of the Regional Response Mechanism (RRM) to the Irma and Maria events.

The primary purpose of the review was to learn from the initial phase of the Hurricanes Irma and Maria response, (the first 8-10 weeks), whilst humanitarian interventions were still ongoing and as the transitioning to early recovery unfolded. It sought to allow simultaneous feedback on the operations and immediate use of recommendations, as appropriate. The single-phase review focused on the:

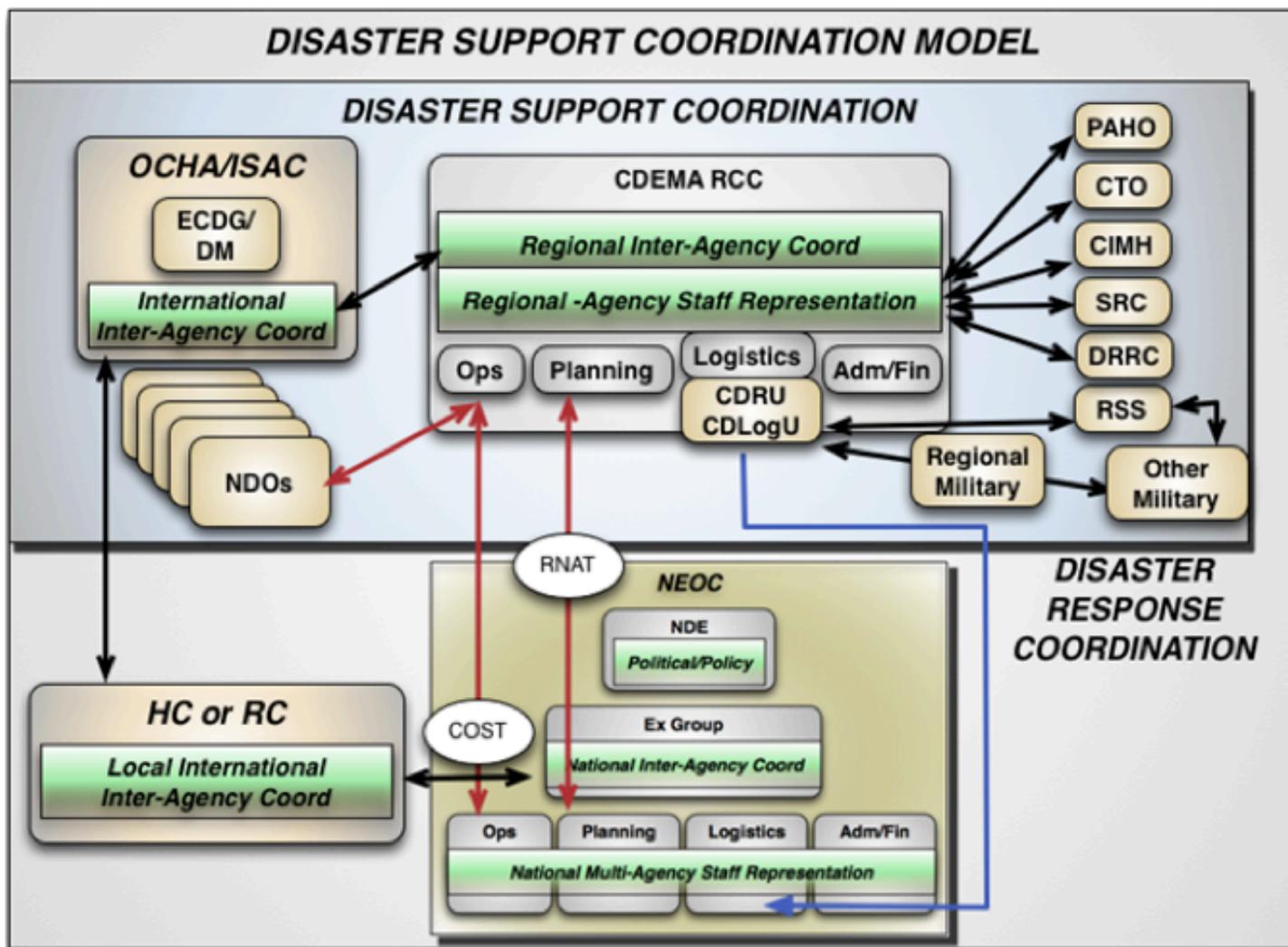


Figure1: Regional Response Mechanism (Source: Caribbean Disaster Emergency Management Agency)

### 1.2 Purpose and Objective of the Rapid Review cont'd

- Appropriateness, connectedness, effectiveness, coordination and coverage, of the humanitarian response to date,
- Issues of regional and international leadership in support of the national Governments including, coordination and accountability to affected populations, as enabling factors in delivering the response to Hurricanes Irma and Maria.
- How effectively donors are aligning delivery of the response with the Grand Bargain commitments to improve effectiveness and the quality of the response provided to affected populations
- Documentation of lessons from the current response and the extent to which general lessons from other responses have been applied,

### 2.0 METHODOLOGICAL APPROACH TO THE RAPID REVIEW

The Rapid Review (RR) provided a space for witnessing plans in practice during an emergency. This unique capture of information can inform ongoing actions, future evaluations and operations and system-wide learning. As appropriate, the RR Report drew on work undertaken as part of the Post Disaster Needs Assessment, ground-truthing mission and available situation and other reports.

# Rapid Review cont'd



Multiple methods used to triangulate findings and ensure congruence with current context

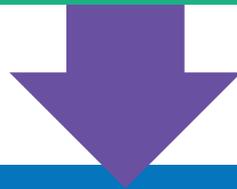
Key informant interviews

Observation

Beneficiary interviews

Data analysis

Document Review



Rapid Review Questions

What worked or is working well?

What hasn't worked or is not working well?

How can improvements be made?

Key actions for improving the response?

Based on consultations with the Regional Steering Committee (RSC), countries chosen for fieldwork were Dominica, a sovereign state extensively damaged by Hurricane Maria; The Virgin Islands (BVI), an overseas territory of the United Kingdom which was extensively damaged by Irma and Antigua and Barbuda, a sovereign multi-island state with limited impact from Irma and a Sub-Regional Focal Point of the CDEMA system. The selected states provide a mix of the jurisdictional spaces encountered in the CDEMA system as well as varied experiences and impacts in which the RRM operations are being reviewed.

A set of guidance questions around five issues – appropriateness and relevance; connectedness and sustainability; coordination; coverage and effectiveness /grand bargain commitments (Appendix III). Focus groups were held for the persons involved in the NEOC, in this case a specific set of questions was developed and used).

In undertaking the Rapid Review, the Team used multiple methods to triangulate its findings, and ensure that these are based on a good understanding of the current context. These methods included:

1. Key informant interviews: the Team interviewed more than 70 senior political and technical government officials, in-country staff of RRM entities, populations and civil society organisations, Appendix II. The interviewees were selected through a mixture of purposive and convenience sampling. This was driven by the fluid nature of those involved in the operations space.
2. Interviews of operational personnel in Antigua and Barbuda, The Virgin Islands (BVI) and Dominica during the period November 11-19, 2019
3. Beneficiary interviews: The Team undertook a limited number of direct beneficiary interviews in the impacted communities of Concorde, Gaulette, Kalinago Territory and Salybia in Dominica. Beneficiary information was also

# Rapid Review cont'd

obtained via secondary sources including the data being generated by Ground Truth, a firm hired by UK DFID for this purpose.

4. Documents Review: The Team reviewed more than 124 documents (Appendix IV) related to the structure and operations of the RRM, the characteristics of the impacting systems, the impact on the affected states and the various assessment and operations reports.

## 2.1 Limitations of the Rapid Review

The Rapid Review took place in a dynamic environment of changing humanitarian needs, personnel and coping efforts. This was compounded by high variability in the documentation of response and relief actions at all levels.

Key Informants became an important source for representing the picture we have presented of the RRM 2017 operations associated with hurricanes Irma and Maria. Whilst generally there was agreement on challenges and capacity gaps of the RRM there were some differences on the drivers and solutions. Where this could not be resolved via triangulation the matters have been presented simply as issues to be addressed for RRM Enhancement.

The RR Report is based on qualitative data and expert observations. Even when data from more quantitative reports, e.g., the PDNAs and Ground Truth Solutions, were utilized it was noted that the baselines used in many cases were dated and in other cases information from the initial assessments were also utilized. The use of this secondary data comes with the associated limitations.

The focus of the Report is therefore on the issues related to the RRM operations and the suggestions proffered to address them.

The word limit of 12,000 or less for the main sections of the report necessitated succinctness in the representation of observations and findings.



# Rapid Review cont'd

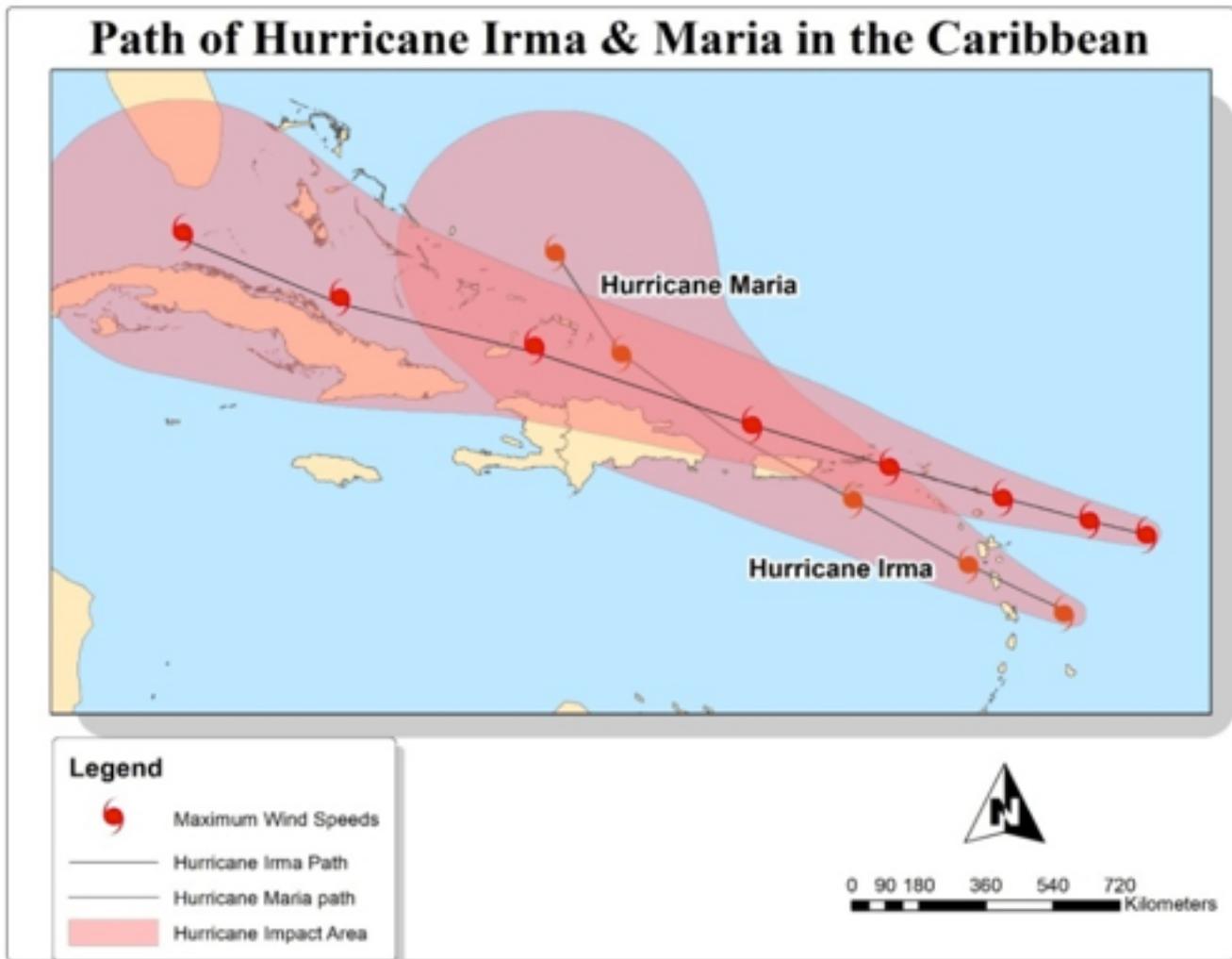


Figure 2: Path of Hurricanes Irma and Maria in the Caribbean

### 3.0 IRMA AND MARIA: THE SYSTEMS AND IMPACT IN ANTIGUA AND BARBUDA, THE VIRGIN ISLANDS (BVI) AND DOMINICA

The 2017 Atlantic hurricane season was a highly active, deadly, and extremely destructive season, featuring 17 named storms; ranking alongside 1936 as the fifth-most active season since records began in 1851. 2017 is also one of only six years on record to feature multiple Category 5 hurricanes, and only the second after 2007 to feature two hurricanes making landfall at that intensity and these, Irma and Maria occurred in the RRM space.

Hurricanes Maria and Irma both maxing out at Category 5 strength during the same year is a rare event for the Atlantic basin, something that last occurred a decade ago, and has only happened a few other times in historical records. Atlantic Category 5 hurricanes are scarce overall, with only 33 known to exist dating to 1924, according to NOAA. Two hurricanes attaining this highest level of intensity in a single year is an exceptional event and something that has only been documented five other times (Dolce 2017; Taylor 2017). The year 2017 was also the only season on record in which three hurricanes each had an ACE of over 40; Irma, Jose, and Maria. Irma's ACE placed it among the strongest Atlantic hurricanes ever observed and

# Rapid Review cont'd

## 3.0 IRMA AND MARIA: THE SYSTEMS AND IMPACT IN ANTIGUA AND BARBUDA, THE VIRGIN ISLANDS (BVI) AND DOMINICA Cont'd

its winds are the most powerful ever measured in an Atlantic hurricane north of the Caribbean and east of the Gulf of Mexico (Masters 2017).

Hurricane Maria was the 10th-most intense Atlantic hurricane on record, and one of the most intense tropical cyclones of 2017. A key feature of these systems was rapid intensification and maintenance of strength. Irma became a Category 2 hurricane in 24 hours and had sustained winds of 185 mph (295 km/h) for 37 hours, the only tropical cyclone worldwide to have winds that speed for that long. It also ties as the 2nd strongest Atlantic Hurricane by wind speed, after

Allen in 1980. Maria's peak of 175 mph in the Eastern Caribbean made the 3rd strongest maximum winds experienced in this sub-region after Allen 1980 and Irma 2017, (Taylor 2017).

Their impacts resulted in extensive disruption to emergency communications in the impacted states, damage to airports, emergency shelters, roads and bridges, schools, hospitals, business facilities and the housing stock. The estimated damage and losses for the countries of the Rapid Review (Antigua and Barbuda, BVI and Dominica) are US \$669.6, \$1,242 and \$927.9 million respectively (Table 1).

Table 1: Estimated Damage and Losses for the Rapid Review countries

Sector	Country		
	The Virgin Islands (BVI)	Dominica	Antigua & Barbuda
Infrastructure (\$ Millions USD)	\$296,000,000	\$306,000,000	\$20,465,000
Infrastructure (% of GDP)	35	58	1
Social (\$ Millions USD)	\$583,020,000	\$443,910,000	\$54,216,196
Social (% of GDP)	363	178	595
Productive(\$ Millions USD)	\$363,390,000	\$177,950,000	\$594,887,000
Productive (% of GDP)	43	21	71
Sum of Three (\$ Millions USD)	\$1,242,410,000	\$927,860,000	\$669,568,196
Sum of Three (% of GDP)	148	110	80

Source: Antigua and Barbuda PDNA 2017, Dominica PDNA 2017, BVI Preliminary Impact Assessment 2017

This is the backdrop against which the RRM Irma and Maria operations were undertaken. The rapid acceleration of the systems derailed the standard notification protocols in the national plans and of the RRM. The assumptions of an existing national operational architecture to be supported by the RRM and of available facilities for emergency communications within the national space and with the CDEMA CU were severely challenged.

# Rapid Review cont'd

## 3.0 IRMA AND MARIA: THE SYSTEMS AND IMPACT IN ANTIGUA AND BARBUDA, THE VIRGIN ISLANDS (BVI) AND DOMINICA Cont'd

The extent of CDEMA's involvement in disaster response operations in Participating States depends on the severity of the situation and the type of assistance required by affected States. Three levels of regional response have been shown in Table 2 below.

Table 2: Level of Activation for the Regional Response Mechanism

Level	Description	Extent of Regional Involvement
I	<b>Local incidents within a Participating State are dealt with in the regular operating mode of the emergency services.</b> The local national focal point is required to submit, on a timely basis, information on the emergency event for the purposes of consolidating regional disaster records.	No regional response required
II	<b>Disasters taking place at the national level which do not overwhelm the socio-economic structure or capacity to respond within the affected state.</b> In such cases, the primary assistance at the regional level will be limited to providing technical expertise to National Disaster Organisations or facilitating their access to specific resources which may be required due to the particular disaster event. <b>The whole operation is still managed by the national disaster focal point.</b>	Limited or specialized
III	<b>Disasters which overwhelm the capacity of the affected state(s) to respond.</b> In such instances the Regional Response Mechanism is activated. This includes the activation of the CARICOM Disaster Relief Unit (CDRU) which is the operational arm of the Regional Response Mechanism. The CDRU comprises representatives from the military forces within CARICOM and its main responsibility is logistical support for the receipt and dispatch of relief supplies.	Full activation

Source: Caribbean Disaster Emergency Management Agency

**Whilst the RR recognizes the challenging environment described above we are reluctant to characterize this as a “Worst Case Scenario”.** Such a characterization will need to be derived from deliberate scenario modeling. What is recognized is that climate models are suggesting that intense hurricanes will become more frequent in the future. Hurricanes Irma and Maria fit the forecast pattern. The focus of the RR is therefore on how the RRM fared with this challenging environment and what may be required to enhance operations for similar challenges in the future.

# Rapid Review cont'd

## 4.0 FINDINGS

The findings are captured under five main assessment elements

Appropriateness and Relevance	<ul style="list-style-type: none"> <li>• Tailoring of humanitarian activities to local needs, increasing ownership, accountability and cost-effectiveness</li> <li>• Assessing whether the humanitarian operations are in line with local needs and priorities (as well as government and donor policy)</li> </ul>
Connectedness and sustainability	<ul style="list-style-type: none"> <li>• Ensuring that activities of a short-term emergency nature are carried out in a context that takes longer-term and interconnected problems into account</li> <li>• Adapted from the sustainability concept - interventions should support longer-term goals such as recovery or development, and eventually be managed without donor input</li> </ul>
Coordination	<ul style="list-style-type: none"> <li>• Systematic use of policy instruments (strategic planning, gathering data and managing information, mobilising resources etc.) to deliver humanitarian assistance in a cohesive and effective manner</li> </ul>
Coverage	<ul style="list-style-type: none"> <li>• Coverage is the need to reach major population groups facing life threatening conditions, wherever they are</li> </ul>
Grand Bargain Commitments	<ul style="list-style-type: none"> <li>• Improving the effectiveness and efficiency of humanitarian action</li> <li>• Working with local and national responders; cash-based assistance; reducing duplication and management costs; joint needs assessment; accountability to beneficiaries; multi-year planning and flexible funding; simplifying and harmonizing reporting requirements; bridging the humanitarian-development divide.</li> <li>• Localizing the humanitarian response and the capacity of local civil society in humanitarian action, in order to better address the needs of affected populations</li> </ul>



# Rapid Review cont'd

## 1. APPROPRIATENESS AND RELEVANCE

### 1.1 *What contribution has the RRM made to the response efforts?*

#### 1.1.1 *How did the RRM perform? What worked well? What challenges were encountered? ; How do we change things that didn't work and enhance those that did?*

Generally the RRM worked as expected for regular events.

**Deployment:** RRM deployments involved the RNAT, CDRU, RSS and COST teams. RNAT provided early reports on damage to facilities and infrastructure. RSS Teams also helped with aid distribution and debris clearance in Dominica. Records from The Virgin Islands (BVI) show that outside of the United Kingdom and its OTs, the RRM had the largest team, 42 persons, on the island (Situation Report #3).

The CARICOM Disaster Relief Unit (CDRU) and the CARICOM Operational Support Team (COST) were on the ground relatively early. Initial deployment of the RRM is envisaged to take place within 48 hours. Dominica was impacted on the night of September 18; the Dominica NEOC reported arrival of the first team on Wednesday 20th including the Rapid Needs Assessment Team (RNAT), deployed out of Barbados and provided early information on the impact of the hurricane systems on the affected states. Deployment to the BVI, though positioned in Antigua and Barbuda within two days, was delayed due to limited available access to transportation assets, limited communications with the territory, unavailability of the airport and the threat from Hurricane Jose.

Antigua and Barbuda SRFP and hub, for **Anguilla, Montserrat, Virgin Islands and St Kitts and Nevis**, had activated SAR and CDRU teams for deployment but these were delayed as there was no air or sea transportation available for the teams due to the imposing threat of hurricane Jose.

**CARICOM Operations Support Team:** COST supported BVI and Dominica in re-establishing National Emergency Operations Centre Services and strengthened those in Antigua and Barbuda. These RRM entities in conjunction with the CDAC

assisted the impacted states in needs assessment, bridging facilities for the coordination of international and unsolicited humanitarian actors at country level; re-establishment of emergency communications and in designing and delivering shelter management training for the persons who found themselves managing the spontaneous shelters that emerged in The Virgin Islands (BVI). The CDRU assisted in tracking and some distribution of relief supplies at ports of entry.

In Dominica the severity of the impact was reflected in the delayed establishment of a functioning NEOC and the organisation of daily briefings. COST provided support in chairing daily briefings once organised.

The regional military also assisted in debris clearance, working at night in Dominica, thus enabling more rapid clearing of debris. Repairs to government buildings and launching of a Bailey bridge in Dominica were also done.

In the absence of a fully functional national coordination mechanism, sectoral systems were established, mainly at the lead ministries, partnering with regional and international partners with whom they have traditionally worked with. This resulted in improved coordination of the humanitarian actions. The RRM partners provided technical support to this process where appropriate.

The CDEMA MOU with the Regional Security System (RSS) and the ongoing dialogue outside of crisis events, appeared to have had worked well. The RSS helped to clear debris and contributed to repairs and security. Similarly, the MOU with PAHO as health sector lead worked well and was reflected in health sector performance in all states.

Bilateral assistance, including from countries outside the RRM was indicated as being extremely helpful. This included air and marine support from Canada, UK, Venezuela, the Dutch and the private sector entities such as LIAT and Tropical Shipping. The water generation and purification support from the EC system was also very helpful.

# Rapid Review cont'd

## 4.0 FINDINGS CONT'D

### 1. APPROPRIATENESS AND RELEVANCE CONT'D

**Information Management:** Though the RNAT generated some early information for driving the humanitarian action the process for its formal adoption and sharing with the partner group compromised its usefulness. Up to the time of the RR these critical documents were not formally adopted. This may have created or contributed to the space for others to do their own assessments.

Those involved in the partner coordination meetings convened by the CDEMA Regional Coordination Centre (RCC) expressed high appreciation for this facility as it provided a sense of the operations and needs that were changing, information for briefing capitals/headquarters and for forward planning.

However it was also noted that the process of information management within the RCC was not always timely in response to queries or requests for clarifications. With respect to the RNAT the CDEMA CU had to await clearance from countries before releasing information, thus delaying the process of dissemination. Whether the reason was internal prioritization processes or external challenges it suggests a need for a re-look at information management of the RRM.

UNDAC and Map Action support to RRM was cited as useful for data management, as was the co-location of UNDAC personnel within the RCC at CDEMA CU after the initial challenges in establishing operational interfacing. The result was the enhanced design and presentation of information products as a platform for improved coordination with the international humanitarian actors.

#### Areas for Improvement

Notwithstanding the early deployment of the RNAT there were operational constraints due to the inaccessibility of the reports to inform humanitarian interventions. This was related to the process for the formal approval of the report at the national level. The absence of this official information impacted some RRM partners who sought to obtain information through their own assessments.

There was an observation that the RNAT reports focused primarily on damage and too little information on needs of the affected population to guide early relief operations.

Though the COST was considered to be very valuable by impacted states they felt that the number of personnel deployed and the length of duty need to be reconsidered to match the requirements of the severity of the multi-island response. There was also a suggestion that the choice of the leader of the COST should be informed by the operational environment in which the deployment is taking place.

#### 1.1.3 *How has the RRM facilitated meeting the needs of vulnerable persons? Children, Aged?*

Elderly beneficiaries interviewed at three shelters in Dominica expressed satisfaction with the relief supplies received such as food and personal hygiene supplies. The Ground Truth Solutions survey in Antigua and Barbuda revealed that 23% of persons interviewed stated that important needs of food and water were not being met and 17% stated that needs for housing and building supplies were not being met. Data was not disaggregated (Ground Truth Solutions 2017 a).

UNICEF partnered with local authorities in providing safe learning spaces and kits for children. It also facilitated psycho-social support. It was clear that efforts were being made to reopen schools so that teaching and learning activities could resume. In some instances, tents were used to provide additional space. In Dominica and the BVI a special programme "Return to Happiness" was instituted for children.

The IFRC in its update of October 26 reported that 521 vulnerable families had received building material to repair roofs; families were undertaking repairs and moving back into their houses. Disaggregated data was not given.

Aged persons in shelters were provided with relief supplies and medical care. Community disaster teams mounted rescue missions to find elderly persons before external help arrived. In the medium term, elderly persons in need of assistance were being integrated into the existing social protection system.

# Rapid Review cont'd

However there was a lack of clarity on the plans for the elderly who had lost their homes, some of whom were still in shelters and had not been assessed.

At the time of the review, affected persons in Dominica were not receiving much information on early recovery operations. Persons interviewed in shelters indicated that they did not know what would happen next, what assistance they qualified for or what assistance was available. For those whose homes had been destroyed and who remained in shelters, there was no information on availability of bedding, clothes or household supplies. In addition there was a severe shortage of batteries, meaning that those with battery powered radios were not able to listen to radio announcements.

The findings by Ground Truth Solutions support the general sentiments received by the Rapid Review team. In Antigua and Barbuda 31% of persons surveyed indicated that they would like more emphasis on reconstruction plans and timelines and 45% of persons responded negatively when asked if they had been kept informed of available assistance (Ground Truth Solutions 2017 a). In Dominica, its survey found that over two thirds of respondents did not know how to access support.

In Dominica to address this concern the government established hotlines and had plans to print leaflets for distribution. A multi-media public information sharing programme to complement its complaints facility was also being planned. A Community Engagement and Feedback survey by CDaC in Dominica concluded that data collected by humanitarian agencies needed to be shared more widely across humanitarian agencies and with the wider public.

In BVI there was recognition of the need for more investment in getting information to the population. Social media was being used extensively but this did not reach all segments of the population. Vehicle mounted loudspeakers were also employed.

An existing gap which must be flagged is that of local personnel who were involved in response operations and were often not able to attend relief centres where distribution was being done.

In addition, there was no plan which allowed these workers to attend to damage to their homes as they were expected to report for duty and to work for long hours. This situation was eventually managed in BVI by the implementation of a shift system which allowed workers to attend to personal recovery. The matter of the lack of psycho-social support for persons working in response operations was raised multiple times and across countries.

1.2 *Of the assistance you received which items or services were most useful? How could they have been made more useful? What was the least useful aid you got?*

The initial supply of food and non-food items was reported as being adequate by beneficiaries who were interviewed by the RR team. Least useful were some food items such as high energy biscuits. The Ground Truth Solutions survey reported that for Dominica forty-three per cent of respondents said their most important needs were not being met while in Antigua Barbuda less than half felt that their most important needs were being met. It should be noted that the Ground Truth Solutions surveys were finalized at the end of November 2017 after the period covered by the Rapid Review. Any extrapolation to the initial response should be done with caution.

With progression of time, beneficiaries become more concerned with getting back to their homes and resuming livelihoods. The Antigua and Barbuda respondents placed information on reconstruction and rebuilding assistance as their top information priorities. In Dominica food topped the list with building materials support next as important needs which were not being met.

At the time of the review the initial process for national recovery planning was underway in the states visited. Discussions among the local authorities and partner agencies for early recovery support were just beginning.

# Rapid Review cont'd

## 1.2.1 *In what ways were local disaster officials involved in the design or implementation of the humanitarian intervention? How useful were these and what changes would be recommended?*

This varied by country. The evidence suggests that where strong leadership, plans and SOPs existed, the local officials were able to guide the response operations with the support of the RRM and external humanitarian organisations providing support, e.g. BVI.

Where a leadership vacuum existed there was some circumventing or exclusion of local officials. Strong pre-event partnerships and previous experience in operations were mentioned as useful in facilitating joint planning and operations.

Access to and functionality of NEOCs were factors in the delay of joint planning among national representatives and partner organisations. Reports suggest that some humanitarian organisations were reluctant to work within the guidelines provided by governments; however as the situation evolved joint meetings were established and partnerships particularly at the sectoral level, improved joint planning.

## 1.3 *Are beneficiary needs changing and how?*

Persons interviewed in shelters, by the RR team, expressed a desire for temporary housing solutions which would allow them to get back into their homes even as repairs were being done. Galvanized roofing and lumber, along with household items, and for some persons, clothing was mentioned as a priority.

In Antigua and Barbuda, 43% named food, water and housing materials as most important unmet needs. In Dominica forty five per cent named food and building material and support for rebuilding as being important and not met (Ground Truth Solutions 2017 a; 2017 b). Though food needs were still important increasingly there was a need for non-food items such as shelter materials and information. According to IOM (2017) Key informants interviewed indicated needs for non-food items at the collective centre they are currently residing

in. Specifically, the three most required materials in collective centres are: mosquito nets (36%), blankets (20%) and hygiene kits (20%). Other needs include: plastic sheeting (7%), kitchen kits (2%), and other articles such as mattresses, clothing, lighting etc. (11%).

There was also the need for information to relieve the uncertainty of the future, particularly for the elderly who had lost homes. Psychosocial support programmes, had started and should be continued as affected persons try to recover from the trauma of the event. The needs of homeless elderly and disabled persons still in shelters should be flagged, as interviews conducted and documents reviewed revealed a lack of information on how this segment of the population would be managed in the medium to long term, beyond some assistance through existing programmes.

## 1.4 *What risks were there to the operations? Have they been adequately considered and mitigated in the design of assistance?*

Major risks to the operations are related to a) limited availability of resources initially to support the RRM, b) inherent uncertainty in forecasting models and c) risks in the affected states. CDEMA CU and operational staff as well as RRM units all reported that lack of funding constrained the speed of deployment. The unpredictability of RRM funding compromised its operations leaving the RRM to depend on assistance from whatever external assets were available; assets which may have other priorities at any given time. In particular, the unavailability or inadequacy of transportation assets delayed deployment of personnel and the movement of necessary equipment which should have accompanied the CDRU. In some cases the CDRU arrived in country without battle boxes.

Operational personnel were hampered by lack of field-based administrative support which is normally provided by the receiving/beneficiary state. The transportation risk was partially mitigated by arrangements with additional military assets from non-CDEMA Participating States (see 1.1.1).

# Rapid Review cont'd

Loss of emergency communications was a challenge in the affected states. The RRM deployment of specialized technical services to The Virgin Islands (BVI) was reported to be critical. The V-SAT equipment provided by the UK government augmented the re-establishment of communications. In Dominica the CIMH was able to create contingency mechanisms that gave local officials critical access to weather forecasts. Forecasting uncertainty was mitigated by the development of a number of possible scenarios with associated RRM requirements and potential deployments for each. These are laid out in the RCC operational plans for both hurricanes.

In the impacted country the risks were largely security related. Local authorities instituted states of emergency and curfews to reduce the risk of security related incidents. Despite these efforts, looting, including of emergency supplies was reported. In Dominica, the RR field team observed a very practical solution of siting a relief container opposite a police station, effectively maintaining security at no additional cost.

Attempts were made to reduce the risks to affected persons in shelters by maintaining static or rolling police presence. The Antigua and Barbuda survey revealed that most respondents felt safe in their accommodation with little variation in responses across accommodation types whether staying at a collective shelter in Antigua, staying with families/friends in Antigua or staying in Barbuda. In Dominica most respondents reported feeling safe at their locations. The data was not sex disaggregated (Ground Truth Solutions 2017 a; 2017 b).

## CONCLUSIONS - APPROPRIATENESS AND RELEVANCE:

The issues of the adequacy of the logistical capacity of the RRM have been a recurrent challenge as well as the physical integrity of some NEOCS.

The severe and multi-country impacts occasioned by two major hurricanes, Irma and Maria, stretched the RRM. Additional surge capacity was required. The process for the timely access to and management of resources for this surge capacity need to be reviewed and enhanced.

The primary country support elements of the RRM (SRFP, RNAT, RCC, COST, CDAC, and CDRU) are valued by the impacted states and partners but there is a consensus for a revisit and rationalization of their functions, size and duration of deployed teams.

The timeliness of the assistance of the RRM is compromised by the uncertainty of transportation related logistics, finance and assets.

The resilience of the national coordination infrastructure, and by implications that of the RRM, requires urgent attention.

## RECOMMENDATIONS - APPROPRIATENESS AND RELEVANCE

1. **Promote greater awareness, understanding and shared expectations of the RRM at all levels (Participating States including political players and NDOs as well as partner organisations to the RRM).**
2. **Review instruments and tools for better alignment with the needs which arise in its Participating States from the impacts of major or extreme events.** This could include increasing the size and duration of the COST, CDAC deployments informed by scenario planning.
3. **Undertake a RRM stakeholder analysis and engagement strategy to inform competency, strengths/interests that may be proactively integrated into the RRM to improve the timeliness of information and access to surge capacity.** The CU could also identify activities which could be carried out remotely by persons not wishing to be deployed but who are willing to help. Also, rationalizing the RNAT and the CDAC; review the process for the formal adoption and use of RNAT generated information; revisit the RNAT damage data focus to include both the assessment of beneficiaries' needs and damage.
4. **Develop options for integrating other Caribbean and Latin America countries and actors into the RRM to address surge capacity deficits especially in logistical assets.**

# Rapid Review cont'd

5. **Review the emergency communications architecture at all levels of the system and implement enhancement measures identified, to include redundancy.**
6. **Undertake an overhaul of the funding arrangements of the RRM at the national and regional levels including fuller engagement of the private sector.**
7. **Undertake an assessment of information management within the RRM with a lens on improving information sharing, technology application and capacity enhancement needs.**
8. **Undertake After Action Reviews in all of the impacted states and share lessons identified on the planning for and managing of severe and catastrophic events.**  
These should be shared and discussed within the CDEMA TAC, CDRU, and ECDG and similar fora.

The University of the West Indies convened two Irma and Maria Vice Chancellor Seminars as a first step in its efforts to champion the promotion of a culture of disaster resilience in the institution and the region. In Dominica as well as Antigua and Barbuda plans were being rolled out to train local artisans in safe construction techniques. This is an important first step in mainstreaming the practice of safe and resilient buildings. This work led by UNDP in Dominica will need to be owned by development officials at the national level, the built environment practitioners and higher learning institutions at the national and regional levels.

The strategies suggested in the PDNAs for longer term coping and resilience building provide a departure for the consultation and discussions that must take place. Indications were that PDNA recommendations were already being considered in the recovery planning processes that were being rolled out (Dominica PDNA 2017, Antigua and Barbuda PDNA 2017).

## 2. CONNECTEDNESS AND SUSTAINABILITY

### 2.1 *Are long term coping mechanisms being put in place?*

At the time of the RR the issues of recovery and its linkages to development were beginning to emerge.

Some key informants mentioned the need to re-examine regional building codes and development practices suggesting an awareness of the need to think beyond the immediate response to these hurricanes, to a more sustainable future.

At the political level the issue of resilience was becoming mainstreamed in the statements of the political directorate and among technical officials in the impacted states and in the region generally. The idea of using the Irma and Maria experiences to frame a programme for climate resilient states has become a focus message for the recovery in Antigua and Barbuda and Dominica (Skerrit 2017; Brown 2017; Gonsalves 2017; La Rogue 2017). This was a central message at the CARICOM Pledging Conference held in New York, November 20-21, 2017.

### 2.2 *Are recovery considerations incorporated in needs assessments and relief operations?*

No documented plan for integrating recovery into relief operations was found. Initial relief operations concentrated on medical care, relief supplies and the provision of basic shelter. Assessments aimed at establishing recovery needs were in the initial phases at the time of the review. The cash voucher and cash grants programmes of the humanitarian actors are moving in this direction with the intent to give recipients more flexibility in meeting their changing needs. Housing needs assessments are being used to inform relief assistance and recovery options.

Situation and other reports mentioned activities which would provide longer term value. These included training programmes in resilient roof construction, building damage assessment, psycho-social support, generator maintenance which will generate skills for the recovery programme and beyond.

According to the UN-CDEMA Situation Report #9 the Prime Minister of Dominica requested assistance from the UN in transitioning from relief to recovery. The UN established a crisis coordination unit led by UNDP and OCHA to provide this support.

# Rapid Review cont'd

The RNAT reports which were available included longer term considerations and recommendations for resilience, particularly for the built environment; the PDNAs included medium to long term recommendations which can inform recovery efforts.

The IFRC in its Emergency Plan of Action update of October 26 mentions plans for community-based interventions including multiple training initiatives such as roof repairs and early warning systems for up to 11 months (IFRC 2017). The European Union mentioned use of climate smart technologies in rebuilding efforts as well as linking relief to rehabilitation, but no modalities are specified (EU 2017:).

Though the recovery planning processes were unfolding, presentation by the impacted states at the CARICOM Pledging Conference suggested that the recovery considerations were emerging from the humanitarian assessments in the emerging transition process.

## 2.3 *What, if any, longer-term impacts are the present programme likely to have?*

There was concern mooted that to maintain relief assistance too long might engender a sense of dependence in the population. There were also suggestions that nutritional considerations should inform the mix of relief food supplies being provided.

The long term impact of migration from affected states should be monitored. The island of Barbuda was fully evacuated to Antigua. A reported 60% of the evacuees now have government jobs in Antigua. There were emerging signals that it may be difficult to fully repopulate Barbuda in the short term. This will have implications on the provision and financing of government services. The PDNA report indicated that many persons also left Dominica in the aftermath of Maria. It is not known how many of these persons will return to resettle on the island.

### 2.3.1 *What environmental impact has the response had?*

No formal environmental impact assessment was available at the time of the review. Damage to forests and coastal ecosystems were reported and observed. One area of concern

was the management of debris. Some residents had resorted to burning debris which is likely to pose problems of poor air quality. Observations are that landslide debris which was left on the sides of roads and on the edges of steep slopes will find its way into valleys and streams. How much of this will find its way into the marine environment and the potential effect on the marine habitat are questions worthy of study. Stockpiling of urban waste on a school playfield was observed.

Debris management is a major challenge in all of the impacted states. The impact on the water supply system, dust and noise pollution will have to be monitored. At the close of operations the country will be faced with the challenge of disposing of large quantities of plastic waste from bottled water, used tarpaulins and packaging of relief items, as well as expired medication and other unsolicited and unusable relief supplies.

### 2.4 *What effect has the response had on the vulnerable populations – children and aged?*

There is limited disaggregated data on this issue.

Dominica's PDNA reported that both sexes interviewed "indicated a reported increase in mental instability and psychosocial need, especially for men and boys who reportedly have not been employing healthy coping techniques" and an increase in drug and alcohol use. Children have migrated from affected countries, but the magnitude of this departure has not yet been ascertained. Affected persons identified psychosocial support as one of the priorities, in some cases rating that above issues of security.

In Dominica, vulnerable persons represent the largest percentage of those still in shelters. Twenty-five percent are elderly, 13% single female-headed households and 12% are persons with chronic illnesses (Dominica PDNA 2017). Income loss and potential for transition into poverty or deeper poverty is high as well as a decline in the quality of life (PDNA 2017).

# Rapid Review cont'd

## 2. CONNECTEDNESS AND SUSTAINABILITY CONT'D

The Dominica PDNA flags concerns regarding the ability of female heads of households to pay the labour cost required for rebuilding and repairing. Female farmers face the same challenge, but the issue remains unresolved at the time of this report.

Initial medical and psycho-social support was available to some of the affected population. The populations still in emergency shelters are mostly elderly/aged and vulnerable, with their houses damaged or destroyed. This is time-sensitive as schools providing accommodation for displaced persons will need to reopen. These persons will have to be monitored and managed for continuing post-impact psycho-social care.

The results from the Ground Truth Solutions survey indicate that for both Antigua and Barbuda and Dominica the majority of respondents felt that their needs were not being met two plus months after the hurricane impacts. This suggests response gaps. However without disaggregated data the specific impacts on the vulnerable cannot be fully answered.

*2.5 What, if any, changes could make the programme of short-term assistance a better fit with recovery and longer-term needs?*

Disaster risk management plans of countries and humanitarian organisations should speak explicitly to the issue of transitions from initial emergency response to short-term relief to early recovery and longer term recovery and rebuilding. Early definition of recovery strategies would help to inform more appropriate short-term assistance. The ability to scale-up existing social net programmes and to bring on stream new 'bridging' programmes to compensate for expected income loss due to a disaster would also help the transition into longer term recovery.

The strategy for the fuller engagement of the private sector in the short term recovery process needs to be better developed.

## CONCLUSIONS - CONNECTEDNESS AND SUSTAINABILITY:

Initial distribution of emergency assistance met needs, however there appeared to be a gap in transitioning to early recovery where early provision of household items, clothing and livelihoods support would have been useful. **The reasons for the large percentage of persons who felt their needs had not been met merit further investigation. There is need for the requirements of the most vulnerable, including for continued psycho-social support to be integrated in the relief and recovery planning processes.**

National contingency plans and planning processes were challenged in the definition, implementation, coordination and management of beneficiary needs. Several parallel arrangements emerged in which significant investment of scarce time in harmonization efforts was needed.

Despite the repeated hazard impacting experiences in the region, transition and recovery planning as an ex ante activity did not appear to have the level of investment or commitment required.

## RECOMMENDATIONS - CONNECTEDNESS AND SUSTAINABILITY

1. **Review the existing needs assessment tools and processes to ensure responsiveness to the needs of the impacted persons during response, relief and recovery operations interventions.** The intent is to minimize the number of parallel assessments, generate more disaggregated data and services that respond to the affected. Regional National Donations and Relief Policies and practice should be a starting point. One needs to know if the relief recovery transition is included, if the states have adopted it and whether other humanitarian partners are familiar with these.
2. **Enhance investment in recovery planning at the national level.** The process, roles and responsibilities in the transitioning from relief to recovery should be explicitly addressed.

# Rapid Review cont'd

3. **Integrate debris management and considerations for environmental sustainability into national DRM plans.** Such considerations should also be included in the plans of humanitarian organisations.

## 3. COORDINATION

- 3.1 *How would you characterize the RRM facilitated coordination with impacted governments, regional Political Secretariats and the broader humanitarian community?*

The extensive nature of the impact generated political interest and engagement at all levels. The RRM, through the Executive Director of CDEMA CU initiated the contact with political leaders of the impacted states. The widespread damage to the emergency communications systems contact was initially challenging. In the case of the VI it was days before contact was made. The multi-island impact generated political engagement at diverse levels. This included briefings for the Secretary General of CARICOM; the CARICOM Chairman of the Heads of Government of CARICOM and an actual discussion among the Heads on the response to the systems. There was much political comment on the implications of the level of impact for Small Island Developing States. In this context the consultations were held with CARICOM Prime Ministerial lead for sustainable development and the Director General of the OECS. A WhatsApp Prime ministerial group was established among the Heads of the OECS. The outcome of these processes informed financial, personnel and relief pledges to the affected states. The deployment by the government of Barbados of coast guard assets was critical to the early arrival of personnel and supplies into Dominica (Charles 2017; Blank and Parker 2017; Parker 2017).

The nature of coordination with impacted states varied based on the level of impact and the local capacity available after impact. There are mixed reports on RRM coordination services with the broader humanitarian community. Though there is an MOU between CDEMA and OCHA it is not supported by agreed Standard Operational Procedures. OCHA deployed personnel to support the work of the RCC. Indications are that the interface took some time but was more productive when realized.

Generally there is a recognized need for more attention on the process for meeting the surge capacity required by the RRM in major events. There were also calls for more collaboration and cooperation between the UN OCHA and CDEMA CU on protocols for better integration of the regional and humanitarian mechanisms they coordinate. The principles of subsidiarity and competitive advantage and sovereignty of affected states will be important in shaping operational understandings.

- 3.2 *What coordination problems did the RRM face and how were they addressed?*

There were initial challenges in the coordination with the international humanitarian community at the national levels and this impacted the response efforts in the early stages of the operations. As indicated at 1.1.1, this resulted from a combination of damaged coordination facilities and loss of or limited emergency communications. The principle of sovereignty was a key issue in the Irma and Maria operations and resulted in tensions which the COST helped the NEOCs to mitigate.

Information on the bilateral efforts at regional and extra-regional levels were not always shared in time to allow for leveraging to support for ongoing operations through the RRM thus not allowing for a full lens on how the total humanitarian needs were being met.

Many humanitarian organisations without knowledge or experience of the region and its mechanisms and procedures for emergency management arrived in the region and started relief operations without reference to the governments or RRM.

Though well meaning, this support resulted in a duplication of efforts. This was also true of some staff of humanitarian entities practicing in the region. The difference in understanding of systems, capacities and roles at the outset of the operations created coordination and trust issues.

Informants noted the efforts of the COST in Dominica to promote meetings between the local NEOC and the international humanitarian community. Though these were useful for information sharing there are indications that the attention to identifying operational priorities for decision making was

# Rapid Review cont'd

limited. Informants also indicated that the absence of approved RNAT reports and the nature of the assessment information there from created space for parallel assessments.

In Dominica the NEOC actors and local authorities were heavily impacted themselves which affected their coordination capacity. In the BVI the loss of the NEOC and communications impacted initial efforts at coordination but these were addressed with urgency.

The logistical challenges in getting personnel and supplies to the affected states were a major problem for the RRM. This was compounded by the limited emergency communications infrastructure.

### 3.3 *What have been the biggest successes in coordination? What were the biggest gaps? What factors contributed to these successes or gaps?*

The RRM entities, notwithstanding the logistical challenges, were early on the ground in the three impacted states. This projected a global image of regional self-help and highlighted the value and challenges of south-south cooperation in SIDS. Its leveraging and coordination across multiple states at the same time highlighted its strengths and areas for improvement (Parker 2017). The demand by impacted states for its services, and the extension of these, suggest that its value is recognized at the national level which is key for its sustainability.

The ability of the RRM to leverage support from neighbouring states that were not part of the system was critical to the Irma and Maria operations. This was facilitated through bilateral arrangements and created a space for revisiting how the surge capacity and logistics deficits in the RRM can be met.

Existing arrangements and MOUs with shipping and airline companies, though limited in number, proved to be valuable. So too were MOUs with PAHO and the IFRC.

Success in the RRM can be attributed to forged and sustained partnerships built through the CDM programme, the RRM training and consultation fora and the number of long term

partners within the ECDG and WCDG. Additionally, predictable funding and in-kind support from partners for key elements of the RRM such as the RNAT and CDRU helped to mitigate the financial constraints of CDEMA. The role played by CDAC, CDRU and COST in supporting national coordination efforts is detailed at 1.1.1 above.

### 3.4 *What, if any, changes could be made to improve coordination of the overall response and transition to early recovery?*

Changes to facilitate improved coordination require the establishment and sustaining of national leadership of the humanitarian interventions in their spaces. During the time of the field mission the evidence of efforts at the national level to uptake this responsibility were emerging. Providing more information on the RRM for the international actors is key for minimizing coordination issues related to unawareness. At the national level processes for registering and tasking humanitarian actors were missing and actions in this direction were encouraged. The need for acceleration of the relief and needs assessment and the harmonization of these efforts were also identified in the countries visited. Mechanisms for beneficiary feedback were still emerging and once realized can help to shape humanitarian action that is centred on the impacted.

Whilst there was evidence of extensive coordination at sector and ministry levels in information and prioritizing of interventions this was generally missing at the national level. A critical key is also the early activation of sectoral coordination. The Team encouraged the national officials to address this gap even as the conversations on recovery planning were unfolding. The bringing together of all entities providing resources to support the dignity of the impacted and livelihood restoration, by local authorities, is necessary for the efficient transitioning to recovery. This was also promoted as a medium for improving the quality and accuracy of information being shared. More robust messaging on the recovery goals, benefits and schedules, was also identified.

# Rapid Review cont'd

## 1.5 *Were the response and relief operations supported by timely communication and information sharing?*

The extensive loss of the communications infrastructure in Dominica and BVI created major constraints in the RRM operations in coordination, relief planning, logistics and reporting.

Information sharing was also affected by this constraint and in some cases by the formalization and approval processes for key elements to inform action, e.g. the RNAT.

Parallel assessments and information in the early stages of the field operations were reported. The situation was improved either when the RRM facility sought to bridge the national and international dialogues and/or when states began to take the reins of coordination. The outcome was that a consolidated picture of the needs of the impacted, including children, women and other vulnerable groups, and the gaps in the coverage of these needs was slow to emerge.

In some of the countries visited efforts had been initiated, with the support of CDRU, and later COST support, to restore the HF/VHF services. In the BVI this was buttressed by VSAT and other communication assets provided by the UK government. In Dominica, there was evidence of efforts to bridge communication challenges in impacted communities through the provision of Wi-Fi facilities.

Communicating with and understanding the needs of the impacted are essential. In Antigua and Barbuda the report of Ground Truth Solutions beneficiary survey reported that 45% of respondents had not received information about access to support, with 43% reporting positively regarding such information. While only 3% of respondents wanted more information about food, 46% wanted information about reconstruction plans and support in rebuilding homes and building supplies, with 54% wanting information by phone and 43% wanting in-person meetings.

## CONCLUSIONS – COORDINATION

Whilst there are successes to report on for the RRM there is need for more investment in the understanding of its structure, governance and operations at all levels. Addressing the limitations in the logistics and surge capacity and competencies are both urgent and important priorities for enhancing the RRM. The importance of the national entities in providing leadership and direction in times of emergencies and crises needs to be reinforced and supported through improvements to and reliability in the NEOC facilities, procedures (especially for managing external actors) and needs assessment processes. Communications and information management are the DNA of humanitarian operations. The RRM still has much work to do in these areas.

Recovery planning is not fully integrated into the ex-ante disaster management processes and the opportunities for providing a smoother transition from relief to recovery are missed or take long to be identified.

## RECOMMENDATIONS – COORDINATION

1. **Promote greater awareness and understanding of the RRM at all levels.** This must target all stakeholders including Participating States, political players and NDOs as well as partner organisations to the RRM. It also includes the RRM better understanding other organisations and their roles.
2. **Undertake a RRM stakeholder analysis and engagement strategy to inform competency, strengths/interests that may be proactively integrated into the RRM for improved timeliness of information and access to surge capacity.**
3. **Urgently address deficits in capacity especially for transportation to include bi-lateral or other access arrangements with non-CDEMA states in the larger Caribbean and the private sector.**
4. **Review and strengthen the emergency communications architecture of the RRM with a lens on redundancy.** It should be undertaken against the standards of the Regional Emergency Communications Planning Guide which itself may need updating.

# Rapid Review cont'd

## RECOMMENDATIONS – COORDINATION CONT'D

- The proposed. The proposed Information and Technology Committee of the RRM could be asked to oversee this action.
5. **Undertake an overhaul of the funding arrangements of the RRM at National and regional levels including considerations for the fuller engagement of the private sector.**
  6. **Strengthen the MOU between CDEMA and OCHA to include the establishment of operational procedures to promote better operational coordination.**
  7. **Strengthen the timely resumption of sectoral coordination based on identified good practice.**
  8. **Develop or enhance the socio-economic profiles of the states to inform baselining for response and relief operations.**
  9. **Utilize existing disaster simulation exercise programmes to promote cross-training of CDEMA/OCHA staff and partners in surge capacity support protocols and operations.**

## 4. COVERAGE

- 4.1 *How has the assistance been provided across key demographic groups and geographic locations? Which groups may have received support and which may have been excluded and why?*

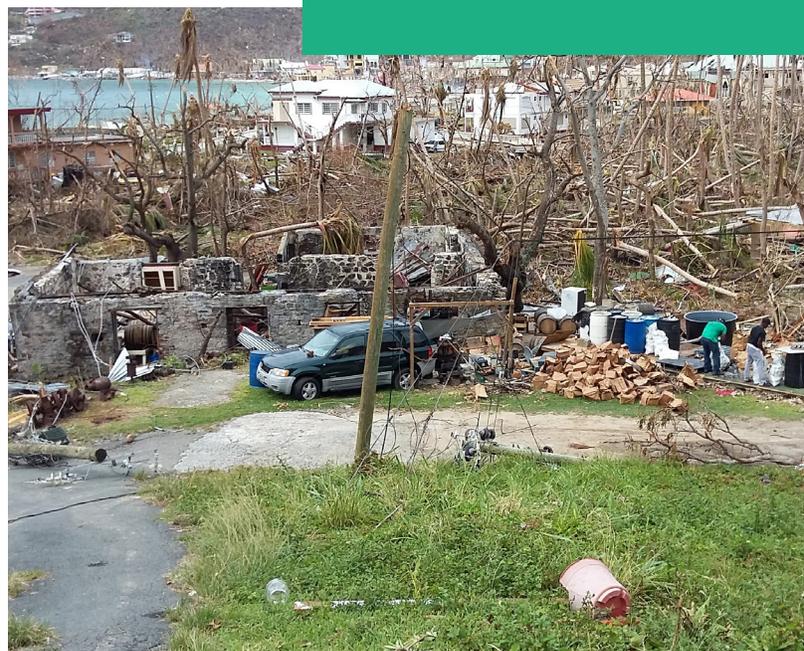
Coverage review was challenged by data limitations related to varying formats of reporting and information sharing. Much of the initial provision of emergency relief, mostly food and water, was carried out by sea and air assets, with bulk delivery for blanket coverage at the community level, thus unsupported by distribution data and needs analysis of needs. The relief data was also variable in format using various units and item descriptions. There were differences in the policies and standards used for determining beneficiary needs and the relief packages. A review of the pledges tracking information provided through the RCC points to the need for more attention to the standardization of how these are captured and articulated.

Notwithstanding the above there was no evidence of serious marginalization, despite some initial rural/urban bias. Roseau in Dominica lagged behind in initial food distributions. Food supplies arrived in Roseau 4 days after the disaster. Roseau however, received water supply earlier than rural areas. Relief distribution data was not available in a sufficient way to identify marginalization.

It was noted by the Review Team that the basic response was indeed very basic, consisting mostly of water, food, personal kits and tarpaulins, and that there was a major push in all countries to move towards cash payments. Differences in the approach to the management of cash programmes created challenges that were under discussion at the time of our mission.

Good solidarity in rural communities was evident in field visits in Dominica and also reported in the BVI.

Not all emergency shelters were prepared with basic services and supplies such as first aid kits. This was compounded by the number of spontaneous shelters that emerged in an environment of the extensive loss and damage to the housing stock and shelter facilities.



# Rapid Review cont'd

Noting the complexity of reporting on coverage listed above, the review team noted the following, mostly un-triangulated information:

Country	Coverage summary
Antigua and Barbuda	<ul style="list-style-type: none"> <li>• 100% target for water access achieved</li> <li>• 94-104% of child protection targets achieved</li> <li>• 90-100% of education targets achieved</li> </ul>
The Virgin Islands (BVI)	<ul style="list-style-type: none"> <li>• 100% of WASH target reached</li> <li>• 68% of PSS target achieved</li> <li>• Between 55 – 77% of education targets achieved</li> </ul>
Dominica	<ul style="list-style-type: none"> <li>• 73% (51,860 people) have regained access to water; 17 water networks require repair</li> <li>• 443 of 742 people living in 45 collective centres are identified as highly vulnerable</li> <li>• Children in 37 of 45 collective centres have not returned to school</li> <li>• 36% of primary and secondary schools have reopened</li> <li>• 6 out of 49 health facilities remain non-operational</li> <li>• 2,805 children are receiving psychosocial support</li> <li>• 25,000 tarpaulin packages have been distributed</li> <li>• 573 metric tons of food and non-food relief has been distributed</li> <li>• In the rural areas there was a short-term post-hurricane food buffer with nutrition available from killed livestock and poultry, legumes and fallen fruit.</li> </ul>

Source: Relief Web and UNICEF

Internally Displaced Persons in three collective centres in Dominica visited by the RR Team reported they had received food assistance. The Team also noted good community solidarity and no indications of increased inequality and marginalization were raised. For IDPs in 44 collective centers the destruction or damage of their home is the reason preventing them returning to their place of origin. Most IDPs report that receiving shelter materials like roofing sheets (39%), timber/wood (25%), construction tools (16%) and blocks/bricks (10%) would greatly facilitate repairs to their homes (IOM, 2017).

Informants in the BVI indicated that emergency shelters were not prepared with first aid kits and shelter populations were missed

in relief distributions. It was difficult to ascertain the extent to which this was applicable to the designated facilities that survived the Irma impact or those spontaneously established in response to the gaps in emergency shelter needs.

Noting the weaknesses identified above in data collection increased importance on beneficiary feedback is needed. Behavioural surveys and beneficiary feedback projects are being carried out by Ground Truth Solutions and CDaC (Communicating with Disaster Affected Communities). Only one report was currently available from Antigua and Barbuda before the drafting of this report and that for Dominica has just been released. It suggested that in Antigua and Barbuda 44% of respondents to

# Rapid Review cont'd

the Ground Truth Solutions survey indicated that they thought support was not going to those most in need, but this response is more in regard to coverage in meeting the needs of the most vulnerable with 27% stating the needs of the most vulnerable had not been met rather than preferable treatment, for example for those with connections to the Barbuda Council (13%).

Figure 3: Damage by Parish and Food Distribution: Dominica



The Rapid Review attempted to use data from social media to graphically present the relationship between parish-level damage and the relief distribution for water and food distribution, Figures 3 and 4. The data suggests that St. David, St. Patrick, and St. Luke were the most impacted parishes by Hurricane Maria. However, as shown in Figure 4, St. Paul, St. George, St. Joseph, and St. Peter obtained higher percentages of water supplies. This is attributed to the higher population sizes of St. Paul, St. George, St. Joseph, and St. Peter. Although their

impact ranged from severe to moderate, the number of persons who experienced these severe to moderate impacts were higher than the populations in the St. Patrick and St. David parishes. Figure 3 displays the correlation between the distribution of food supplies and damage among the parishes. St Joseph has a population of 5300 persons and a population density of 47 persons per km<sup>2</sup> while St George has a population of 21,241 persons and a population density of 378 persons per km<sup>2</sup>. As suggested by Figure 3, despite the fact that St. Joseph parish was moderately impacted and has a relatively smaller population, this parish obtained the highest number of kilograms of food amongst all of the parishes. Large percentages of food were also sent to the St. George, St. Paul, and St. Andrew parishes but not as high as St Joseph. St. Luke and St. John received the least percentage of food supplies. This is attributed to the smaller population sizes of 1,668 and 6,561 respectively.

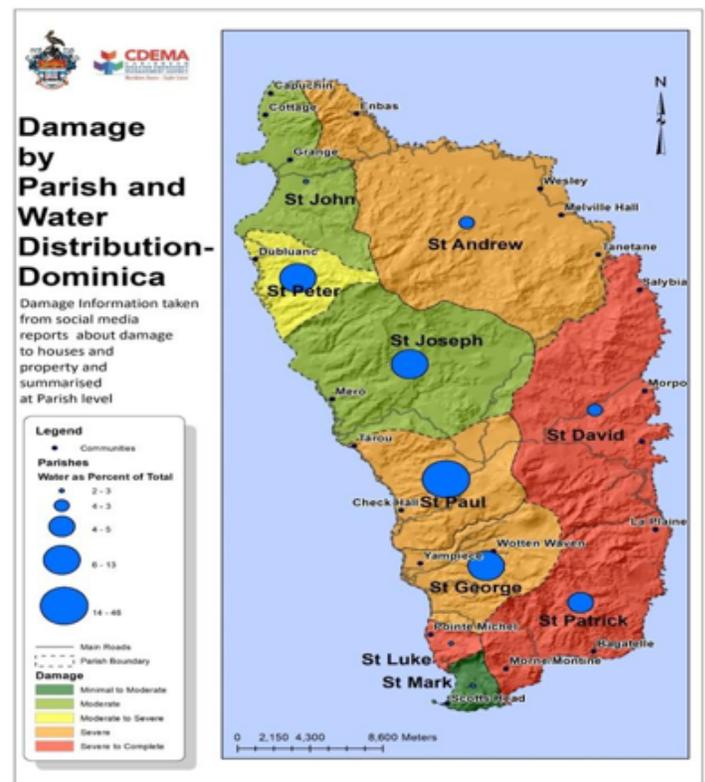


Figure 4: Damage by Parish and Food Distribution: Dominica

# Rapid Review cont'd

## 4.2 *What, if any, changes could be made to the programme to improve the coverage of assistance?*

Coverage of basic assistance seemed to be adequate, the problem being more in regard to timeliness, especially shelter support (tarpaulins and shelter kits). There is an identified need for the managing and coordination of the assessment process at the outset; also for improved information and reporting for gap assessment.

In all three countries visited nearly all agencies were moving from initial relief distributions towards cash programming allowing beneficiaries to meet their own needs. In the Ground Truth Solutions beneficiary survey conducted in Antigua and Barbuda 84% of respondents were satisfied with the process of registering for cash support, which is relevant in that only 48% of respondents indicated that the provision of household items distributed as non-food items in the relief phase was important to the family's wellbeing.

The main change in programming proposed in Antigua and Barbuda by respondents to the Ground Truth Solutions beneficiary survey was to speed up shelter support, a priority identified by 41% of respondents, with 19% stating their inability to return home was their main concern. 52% of respondents said the constraint to returning home was a lack of shelter

## 4.3 *Have all of those in need of security or protection received protection during the interventions?*

Looting took place immediately after the impacting hurricanes passed. This brought under control by security forces from the RSS, the Regional Defence Forces and the UK military, in the case of the BVI.

Security was provided for operational facilities, assessment teams and relief distribution personnel.

Given the scale of impact and the spontaneity of shelter establishment security was not available for all shelters.

It was suggested at item 2.4 under Connectedness and Sustainability that there was concern about the number of children being displaced internally and those leaving for other islands which created situations for potential abuse. The concern about the elderly and impacted about the next steps was also an issue.

### CONCLUSIONS – COVERAGE

The process for assessing humanitarian needs for hazard impacts by the RRM is in need of urgent review at all levels. Common tools and standards for needs assessment and reporting need to be agreed by all to be underpinned by a common platform for the prioritization of the needs of the affected.

There is a need for an urgent dialogue on the approaches to cash based relief programmes in the national response mechanisms.

More investment is needed in the rolling out of the humanitarian interventions processes in the RRM that are centred on the needs of the affected and less on the agendas of the humanitarian actors. Protection and Security of the affected needs to be part of this exercise.

### RECOMMENDATIONS – COVERAGE

1. **Undertake a review of the interface of impact and needs assessments in the framing of humanitarian interventions in the RRM, as matter of urgency.** This necessitates looking closely at the roles of CDRU, RNAT, CDAC and COST in the process and the existing mechanisms at the national level for relief distribution, monitoring and management.
2. **There is a need for inter-agency sectoral targets and joint monitoring mechanisms.**
3. **Reposition the RRM to a beneficiary system that is centred on the affected.** Clear processes for the assessing and monitoring of needs and change in needs with time should be rolled out and should include complaints and reporting facilities.

# Rapid Review cont'd

4. **Undertake a review of the cash based humanitarian assistance programmes across the CDEMA affected Participating States as an immediate first step in framing a forward looking approach for its further development in the RRM.**

## 5. GRAND BARGAIN COMMITMENTS

- 5.1 *Did regional and international humanitarian actions reinforce or replace local capacity?*

The RRM through the CDRU, RNAT and COST worked to reinforce local capacity in establishment and management of the NEOC, organisation, and in some instances the distribution of relief supplies. The support also included the creation of structures and processes for the coordination of external humanitarian actors.

International actors working within the established donor coordination mechanism were generally framing their support to the local capacity through the RRM. The integration of the OCHA, Map Action and WFP into the Regional Coordination Centre at the CDEMA CU and into the RNAT helped to reinforce the coordination and tasking of assistance to the impacted states.

Other actors who were not part of this process, or familiar with it, were more inclined to work outside the RRM, including those at the national level. This resulted in parallel assessment mechanisms and relief supplies distribution. In the countries visited the efforts to streamline and respond to the demands of the external actors for logistical support became a burden to the local system.

Once the mechanisms for integrating the international humanitarian actors in the local system, through sector level or thematic focus areas, the reinforcement of local capacity was better realized.

The failure to effectively integrate the wider humanitarian community into a government led, CDEMA supported operation was seriously hampered by the unavailability of the RNAT assessment reports and appropriate relief tracking.

The humanitarian community is under pressure from donors to demonstrate fast and effective humanitarian response.

- 5.2 *In which stages in the financial intervention cycle were national/local players involved?*

The regional and international actors within the RRM have agreed on financial or funding commitments which are triggered once the system is activated at the levels determined. This proactive facility provides some level of predictability for initial assistance.

At the international level donors have earmarked resources for the UN system and accredited NGOs which can be partially accessed once a disaster occurs and the entity makes a request. The CERF is similarly triggered.

The CDB Emergency Response Grant is the only facility identified to date to promote consultation with officials in the impacted states on the use of the funds. The other mechanisms do not involve the national players in the access. Based on the information gathered to date the priority for the use of humanitarian financial resources is usually framed by the humanitarian actors based on available assessments and their areas of interests and then shared with the government and/or the ECDG and RCC.

The financing structure for humanitarian action in the Caribbean is ripe for further investigation. The contributions of CDEMA Participating States of military personnel and assets for months are not monetized and may present a different picture of the funding architecture for humanitarian action in the CDEMA system. Further work in this area is strongly encouraged.

- 5.3 *Were there any examples of localization of good practice?*

In Dominica, many innovative practices in the response operation were observed that addressed the extensive disruption in the telecommunication and emergency communications services. These included

# Rapid Review cont'd

- a. the placement of free Wi-Fi services in communities allowed for the connection with families and the placement of satellite phones to allow for communication between field personnel and their operations bases where needed.
  - b. Efforts made by government to better listen to communities included a complaints facility, establishment of a cell hotline, email and walk-in services. There was also a draft programme for better Communicating with Disaster Affected Communities and for Community Perception surveys. The former was taking longer than planned to be rolled out.
  - c. In Antigua, the team was briefed on the ingredients of a comprehensive integrated programme for internally displaced persons. This appeared to be “affected persons centred” and included medical care, education services, feeding and recreation programme and some psycho-Antigua and Barbuda Red Cross Society. Training of volunteers in gender based violence, training of the shelter managers of the facility in handling the differently able and student placement were also part of the services provided to the displaced. The RR team recommended this as an activity for good practice documentation and as a first step in revisiting the adequacy of existing evacuation policies for major impact scenarios.
  - d. In Antigua and Barbuda, the government took a proactive decision, based on the forecasted threat from Irma, to place an order of critical supplies for the country through a contingent credit facility. It also provided material to the poor and vulnerable to board up their homes prior to impact.
  - e. In the BVI the loss of emergency communications infrastructure created an information gap. The WhatsApp facility was available for some time after the system failure and was used to provide critical information on the status of the Irma threat. Informal feedback was that this was vital in the low number of deaths recorded. This is an area for further review and documentation of the use of social media in early warning.
  - f. Also in BVI in the absence of re-established broadcast facilities rumours were emerging that had to be managed. The DDM used visuals of operations and services on its social media spaces to counter the rumours. This also needs documenting.
  - g. The CDAC in the BVI demonstrated flexibility in its remit and provided crash training for persons managing the many spontaneous shelters; assisted in the structuring and preparation of initial needs surveys, adopted and repaired the school where they were staying.
  - h. The RSS provided psycho-social assessments of its personnel in the field and after deployment. The process and results should be documented and integrated into the Deployment Operations Orders.
  - i. Ham radio operators proved essential in Dominica for linking injuries to ambulance/transport solutions. Ham operators also assisted in air-ops communications for safe landings. Ham to Ham communications worked from British to American BVI and by messaging to active media got key messages back to the affected population.
  - j. The effort of the BVI to pilot and audit a cash voucher programme before national implementation was a good practice for improving relevance and accountability. The use of an independent entity, CDAC, to undertake the audit is commendable.
- 5.3.1 *Were there any examples of local good practice being adopted by regional/international partners?*
- The RR Team did not encounter any examples of local being adopted by the regional/international partners. Given the timing of the RR this is understandable. However, given the list of good practices identified at 5.3 above this item could be part of a future evaluation.

# Rapid Review cont'd

## 5.4 *Were common factors for intervention success established by the actors in the RRM?*

Whilst there were coordination meetings on general areas of tasking it was not clear that success factors were established for the early humanitarian interventions.

As the national governments began to establish stronger ownership of the coordination process success factors became more visible especially at the sector level where integration between external and internal actors was seen to be stronger.

## 5.5 *What percentage of the financial resources went directly to national, regional and international actors?*

Indications are that most of the funding from the traditional donors is being directed through the international NGOs and the UN System. There are new actors and an assessment of how they have proposed to deliver pledges requires effort and time beyond those of this RR

## 5.6 *What evidence is there that joint needs assessment, cash programming and accountability to the affected populations exists. What factors are influencing or hindering these?*

Joint assessments to inform the needs of the affected populations were limited in the early stages of the operations, influenced by limited communications and access to impacted areas.

These improved over time and were later structured around sector level processes. As the process of transition to recovery picked up these are now being informed by a national lens. With respect to cash programmes there is emerging collaboration.

The Government of Dominica were collaborating with UNICEF and the WFP to launch an Emergency Cash Transfer programme to target about 25,000 most vulnerable households and children affected by the passage of Hurricane Maria. It was built around the existing government's public assistance programme

and automatically included those enrolled in it. Additionally, households that lost their form of livelihood or main source of income as a direct result of the hurricane were being considered for inclusion.

In the BVI there was also a collaborative effort to launch a cash-based programme sanctioned by the government, facilitated by the Red Cross. Philosophical differences on how to operationalize cash based programmes exist. There are a mix of cash for work, cash grants and cash voucher programmes. The IFRC is a leader in this practice in the RRM space and has made its expertise available even though it has to date had limited partnerships in this area.

There is a need for improving awareness of non-food item assistance options in humanitarian interventions programmes.

## CONCLUSIONS – GRAND BARGAIN COMMITMENTS

Whilst regional and international humanitarian assistance sought to support the systems at local effort the widespread disruption to communication and the impacted relief actors constrained these efforts initially. Systems and processes for managing the influx of humanitarian actors in major impacts are limited and inadequate.

The relief assistance programmes in the RRM are being challenged to embrace new options for meeting the needs of the affected, building on new technologies and practices. There is an opportunity to review the various cash based programmes applied during the Irma and Maria operations.

The analysis of financing mechanisms for the humanitarian actions in Irma and Maria suggest that the majority of resources are being allocated through the traditional trusted NGOs and the UN system. This is one area in need of study and can provide a platform for regional reporting on the Grand Bargain Commitments.

There appears to be limited awareness among RRM stakeholders of the outcomes of the World Humanitarian Summit and the related commitments.

# Rapid Review cont'd

## RECOMMENDATIONS – GRAND BARGAIN COMMITMENTS

1. **Enhance and/or elaborate processes for the management of humanitarian actors in National and Regional Contingency Plans.** Consideration should be given to the handling through immigration, registration arrangements, information on the national disaster management system and tasking.
2. **Initiate a study of the financing of the humanitarian operations of Irma and Maria as a priority.** This would also provide a baseline for monitoring the financing structure of humanitarian action going forward.
3. **Initiate lobbying for CDEMA's inclusion in the list of trusted agents for access to donor humanitarian financing.**
4. **Establish an Irma and Maria Research and Good Practices Initiative as a central platform for a Learn to Enhance Programme.**
5. **Enhance collaboration among the CDEMA CU, OCHA, IFRC and other RRM stakeholders to launch an awareness and discussion initiative on the Agenda for Humanity and the related Commitments coming out of the 2016 World Humanitarian Summit.**

## 5.0 GENERAL CONCLUSIONS

The RRM is an evolving operational mechanism with an architecture for coordinating humanitarian support to impacted states. It has demonstrated value and relevance to its Participating States (PS) and partners. The full realization of the RRM potential is constrained by persistent challenges in the logistics platform for timely delivery of personnel and supplies and by limited and unpredictable funding.

There is need for a revisit of the funding model, task sharing and the rationalization of its service delivery components with a lens on efficiency.

The capacity of Participating States on which the RRM is platformed is highly variable thereby generating uncertainty in its service delivery.

Strategies for accelerating the adoption of agreed standards need to be revisited. The Irma and Maria experiences suggest this is an item of urgency and needs a robust discussion at the political level on the position of acceptable risks.

Meeting the surge capacity needs of the RRM in times of multi-island and catastrophic events is an issue of priority and urgency given the identified challenges and a future scenario of increasing major impacting events.

Stakeholder analysis and partner engagement strategies are needed to better frame collaboration opportunities and capability enhancement, especially for surge capacity.

The international humanitarian community, development partners and donors should work with the CDEMA system to help address capacity and capability gaps in ex-ante interventions as opposed to an inclination to replace or duplicate the RRM services during ex-post operations. CDEMA should also look for partnership opportunities where other organisations provide added technical skills and capacity in delivering the RRM services.

Though this was a first (for two consecutive impacting category 5 hurricane events) characterizing Irma and Maria as **“Worst Case Scenario”** will require more scientific input. The support of the UWI Climate Studies Group in generation of future or other scenarios for RRM planning is strongly encouraged.

Many of the issues raised in this report were flagged in many CDEMA events reviews since 2010. This suggests more investment is required in implementing lessons identified, robust policy oversight and support.

## 5.0 GENERAL CONCLUSIONS CONT'D

The RR team is of the view that the issues identified relate to the fundamentals of the RRM resourcing and operational environment which are exacerbated by major events, whether in single or multiple states. There is also a general need to better recognize the reality of the limited local capacity and revisit the RRM assumptions around this. This may require a rethink of the focus of RRM operations planning and deployment strategies.

# Rapid Review cont'd

The Rapid Review Report includes an action framework with suggested key actions, roles and timeframes for ensuring that the RRM can deliver on its objectives in helping to mitigate the dislocation and discomfort of communities impacted by hazards.

However, based on missions and discussions with key informants, the Team also identified nine (9) NOW ACTIONS that could benefit the ongoing operations. These were part of the feedback given to the states visited.

## 6.0 NOW ACTIONS

One of the key outcomes of the Rapid Review was to identify now actions that could enhance the operations before the next response or hurricane season. The Team made key observations with suggestions for action with each of the impacted states visited. These are captured in what the Rapid Review Team called the NOW ACTIONS. The broad areas of suggested action are listed below.

- NowAction1. Psycho-social support for operational staff and a monitoring programme over the next 6 months at least.
- NowAction2. More deliberate attention to be paid to development and operationalization of welfare management programmes for targeted relief personnel.
- NowAction3. Establishment or finalization of beneficiary monitoring and assessment mechanisms
- NowAction4. Restoration of emergency communications infrastructure with a lens on redundancy
- NowAction5. Improved documentation and record keeping for After Action Reviews (AARs), lessons learning and accountability reporting
- NowAction6. Investments in hardened NEOC and operations coordination

NowAction7. Re-examine cash, voucher and livelihood revitalization initiatives for sustainability, impact on cultures and economies

NowAction8. Revisit the assumptions for national operational readiness in context of the rapid onset of hydro-meteorological systems and bearing in mind forecast errors

NowAction9. Develop public information and education programmes for messaging the transitioning to recovery and managing expectations, with facilities for feedback from citizens and the impacted (including the vulnerable)

## 7.0 ACTION FRAMEWORK FOR ENHANCING THE REGIONAL RESPONSE MECHANISM

The section offers a framework for improving the Regional Response Mechanism. It is primarily drawn from the information and suggestions provided by Key Informants, feedback from the RSC and documents review. Given the new norms for hurricane intensity and magnitude that are emerging, from the forecast modeling, addressing the gaps in the RRM is both urgent and important. The enhancement actions are addressed at the key stakeholders and elements of the RRM.

The next hurricane season is less than six months away and there are key areas to be addressed in the short term. The reality of the consultation, resource mobilisation and implementation processes mean that some enhancement interventions will require more than six months, consequently a two year RRM Enhancement Programme is being proposed.

Subsequent to the acceptance of the **RR report**, it is also **recommended that a RRM Enhancement Committee** of the **CHC**, be established to consider the Action Framework, prioritize the actions to be addressed, draft an implementation plan and develop a related budget and identify resourcing

# Rapid Review cont'd

strategies. The idea is to promote the synergies of humanitarian and development investments.

To accelerate efforts to integrate technology in the RRM and to promote innovation in its application in the RRM, a Technology and Innovation Committee of the RRM should be established. This can be comprised of personnel from regional organisations, the private sector, development partners, Participating States and Civil Society. It is anticipated that the Action Framework will also draw on the outcomes of the After Actions Reviews that are or will be taking place in the RRM in coming months. The completion of these at the soonest is strongly encouraged. Consideration will also have to be given to how to integrate the findings of the RR with proposed RRM Strengthening Consultancy planned by the CDEMA CU.

In suggesting the lead and supporting actors for the RRM enhancements proposed the RR Team sought as far as practical to work within the existing governance structures.

Activity	Lead Entity	Collaborators	S	M	L
<b>RRM Enhancement General</b>					
1. Promote greater awareness and understanding of the RRM at all levels (Participating States including political players and NDOs as well as partner organisations to the RRM)	CDEMA CU	PS; RRM Partners			
2. Revisit the process of engaging non-CDEMA Caribbean and South American neighbours in the RRM, to address deficits in capability, especially for transportation	CDEMA CU; CDEMA TAC; CDEMA COUNCIL	CARIFORUM; CUBA, CARICOM, MIAH			
3. Review instruments and tools for better alignment with the impacts in its Participating States for major or extreme events to include technical and construction brigades	CDEMA CU, Participating States	OCHA; IFRC			
4. Undertake a RRM stakeholder analysis and engagement strategy to inform competency, strengths/interests that may be proactively integrated into the RRM to improve timeliness of information and access to surge capacity	CDEMA Coordinating Unit, Development Partners	RRM Stakeholders, OCHA			
5. Review and strengthen the emergency communications architecture at all levels of the system to include redundancies	CDEMA CU; PS; Meteorological Services; Military; Communication Providers, RSS	CANTO;			

# Rapid Review cont'd

Activity	Lead Entity	Collaborators	S	M	L
<b>RRM Enhancement General Cont'd</b>					
6. Undertake an overhaul of the funding arrangements of the RRM at the national and regional levels including fuller engagement of the private sector	CDEMA CU; CDEMA CNC	Regional Private Sector; CARICOM; OECS			
7. Revisit methodologies, process and technology for information collection/sharing for operations management, decision-making and public education (RRM brand management)	RCC; ECDG;WCDG;OCHA	CIMH; RSS			
8. Review tools, standards, guidelines and SOPs to include consideration for sequential multi-country major event scenarios	CDEMA CU; UWI; CIMH	RRM PARTNERS			
9. Strengthen and promote redundancy in the emergency communications architecture	RRM Partners				
10. Develop a surge capacity strategy to include new dimensions for technical and administrative support brigades to aid in the restoration of public facilities, and project management and restoration of public services.	CDEMA CU	RRM PARTNERS			
11. Establish Guidelines and Operational Procedures for inclusion of Psychosocial first aid services during and after deployment	CDEMA CU; PAHO	UNICEF; IFRC			
12. Re-examine the roles of the RRM stakeholders to identify more Lead Partner designation informed by competitive advantage	CDEMA CU				
<b>RRM ENHANCEMENT: Governance</b>					
13. Revisit the structure and governance of RRM for reinforcing and clarifying roles, expediting decision making, financing of operations and deployment of the teams	CDEMA CU; RRM Enhancement Committee	RRM Stakeholders			
14. Develop options for integrating other Caribbean and Latin America countries and actors into the RRM to leverage surge capacity coverage	CDEMA TAC;	MIAH; OCHA; COCOR			

# Rapid Review cont'd

Activity	Lead Entity	Collaborators	S	M	L
<b>RRM ENHANCEMENT: Governance</b>					
15. Review processes and protocols for triggering and integrating surge capacity needs from UN and other systems	CDEMA CU; OCHA	RRM Partners			
16. Establish processes for rapid movement of CARICOM and other nationals from impacted states	CDEMA CU; PS	Immigration; Foreign Affairs; Military			
17. Develop guidelines, code of conduct and procedures for humanitarian actors entering or transiting the operations areas.	CDEMA CU; PS;	CARICOM Secretariat; OECS			
18. Expand the space for the integration of the Private Sector in the RRM	CDEMA CU	CDM CHC			
19. Establish a Public Information Strategy and Programme for the RRM	CDEMA CU	CDEMA TAC; CNC; RRM Stakeholders			
<b>RRM ENHANCEMENT: Coordination</b>					
20. Explore additional arrangements with regional private sector for the enhanced access to air and sea assets to support RRM logistics	CDEMA CU; RSS	Participating States; Airlines and Marine sector;			
21. Review, enhance, train in and exercise the emergency communications mechanism	ALL RRM PARTNERS				
22. Review and enhance RRM tools, standards and guidelines based on lessons identified from AARs, evaluations and the RR to include coordination with national mechanisms in major event scenarios	CDEMA CU	RSS; CDRU; CIMH, ECDG/WCDG			
23. Engage with the UN System, through OCHA, on the process for synergizing systems in Caribbean Operations	CDEMA CU/OCHA				

# Rapid Review cont'd

Activity	Lead Entity	Collaborators	S	M	L
<b>RRM ENHANCEMENT: Coordination</b>					
24. Assess the existing RRM tools and methods for information collection and sharing in times of emergencies and disasters and how these may be improved through better use of available technologies and tools.	CDEMA CU	RRM Technology And Innovation Committee			
25. Explore how the CDM Sector coordination facility concept can be transitioned into the RRM operations	CDM CHC	CDEMA CU; CHC Sub-Committees			
26. Develop a RRM operations budget for different impact scenarios as a first step in addressing the under capitalization of the RRM	CDEMA CU	CDEMA TAC; CDM Harmonization Council			
<b>RRM ENHANCEMENT: RCC AND RNAT</b>					
27. Revisit the information management process for providing timely information, responsiveness to queries and packaging of information for multi-stakeholder decision making and public information. There is potential for a common data repository	RCC	RRM Technology And Innovation Committee			
28. Revisit technologies to allow for faster generation of impact information e.g. VRT, drones, crowd sourcing, community informants, geo-spatial services.	RCC	RRM Technology And Innovation Committee			
29. Revisit RNAT tool in context of timely access to information and coverage for planning humanitarian action at all levels and for both needs and damage assessment.	RNAT	RRM Technology And Innovation Committee			
<b>RRM ENHANCEMENT: Donors/Partners</b>					
30. Increase awareness of and Deepen geographic and agency representation in RRM	Donors/ partners	Regional and HQ units			
31. Improve information sharing on resource mobilisation and use	CDM CHC; Donors/ partners	RRM Stakeholders			
32. Establish common success criteria for humanitarian interventions	RCC; Donors/ partners	RRM Stakeholders			

# Rapid Review cont'd

Activity	Lead Entity	Collaborators	S	M	L
<b>RRM ENHANCEMENT: CDRU AND COST</b>					
33. Review the number and size of the CDRU and COST teams	CDEMA/RSS	Disciplined Forces; PS			
34. Establishment of CDRU unit within SRF spaces	CDEMA; RSS	Disciplined Forces; PS			
35. Revisit the protocols for more timely release and team predictability for COST and CDRU	CDEMA; RSS	Disciplined Forces; PS			
36. Examine options for greater air and sea lift	CDEMA CU; RSS; IMPACS	Airlines; Shipping Agents;			
37. Review the Security Arrangements for RRM operations.	CDEMA CU; RSS; RRM Enhancement Committee	Disciplined forces; PS; IMPACS			
38. Examine options for utilizing personnel from outside the National Disaster Organisation as Team Members	CDEMA Response Planning Committee	CDEMA TAC;			
39. Develop competency profiles and selection criteria for team leadership and composition in different operational settings	CDEMA Response Planning Committee	CDEMA CU; TAC			
40. Establish a schedule for training of COST personnel	CDEMA CU	Participating States			
<b>RRM ENHANCEMENT: Participating States</b>					
41. Promote redundancy in emergency communications architecture	NDO	Telecoms subcommittee			
42. Establish a resilience programme for critical facilities including the NEOC and alternate NEOC	NDO	National Disaster Executive Committee			

# Rapid Review cont'd

Activity	Lead Entity	Collaborators	S	M	L
<b>RRM ENHANCEMENT: CDRU AND COST</b>					
43. Develop, promote and implement protocols for managing humanitarian actions – registration programme as part of immigration process at ports of entry	NDO	Immigration; Foreign affairs			
44. Revisit shelter management policy, shelter management to include resourcing.	NDO	Shelter Management Committee; NDO executive			
45. Re-examine relief supplies donations and distribution policy to include procedures for monitoring, tracking and reporting	CDEMA/CU; PS	CHC Civil Society Sub-Committee			
46. Develop or enhance welfare policy and programme for emergency operations personnel and volunteers	NDO Participating States	Ministry of Health; Social Welfare, Service Commissions			
47. Establish annual national readiness assessment and reporting facility (legislation exists)	CDEMA CU/TAC PS	NDO Executive; CNC			
48. Revisit and strengthen systems for continuation of government in time of crisis	NDO Participating States	Office Of Head Of Government; Private Sector			



# APPENDIX I

## CONCEPT AND TERMS OF REFERENCE

### RAPID REVIEW OF THE REGIONAL RESPONSE IN THE HURRICANES IRMA AND MARIA EVENTS

#### 1.0 INTERVENTION BACKGROUND

##### 1.1 The events

During the month of September 2017, between the 5th and 20th, the Caribbean region was impacted by two major sequential Hurricane systems, Irma and Maria, both Category 5 resulting in multi-island impacts. Irma, the 9th named hurricane of the 2017 Atlantic Hurricane Season, became a category 5 hurricane in the Eastern Atlantic Ocean on Tuesday September 5, 2017. With maximum sustained winds near 185 mph, Irma a powerful Category 5 Hurricane impacted the CDEMA Participating States of Anguilla, Antigua and Barbuda, Virgin Islands (UK), Dominica, St. Kitts and Nevis and Montserrat over Tuesday night into Wednesday evening, September 6, 2017 and continued its destructive path and impacting the northern border of Haiti, Turks and Caicos Islands and the southeastern Islands of the Bahamas on September 7, 2017. A combination of strong winds, storm surge, intense rainfall from Hurricane Irma, resulted in the loss of lives and significant damage to homes, critical infrastructure and sectors throughout the affected islands. Whilst hurricane Irma was impacting the northern CDEMA Participating States, Hurricane Jose a Category 3 cyclone posed a threat to the Northern Leeward Islands but fortunately did not result in any impacts. Antigua and Barbuda (Barbuda), BVI and Dominica were the three most significantly impacted of these islands.

Maria, the 13th named hurricane of the 2017 Atlantic Hurricane Season, became a category 5 hurricane near the Leeward Islands on Monday September 18th, 2017. Hurricane Maria impacted Dominica at approximately 9:35pm on September 18th as an extremely strong hurricane with wind speeds of 155 mph. It then impacted St. Kitts and Nevis and Antigua and Barbuda on September 19th, 2017 and the Virgin Islands September 19 – 20, 2017. Maria rapidly progressed to a major hurricane (Category 3) within 48 hours and subsequently to a catastrophic hurricane (Category 5) just 8 hours later.

Information on deaths and damages are still being quantified and are being captured through regular situation reports by CDEMA [www.cdema.org](http://www.cdema.org). To date approximately 35 persons are confirmed dead in the CDEMA Participating States from these events and insured losses alone is estimated at US \$4.3B.

##### 1.2 Description of the intervention to be evaluated

The impact of sequential and substantial multi-island impacts of Hurricanes Irma and Maria represented a new operational environment ('worst case scenario') and experience for the response systems of affected Participating States, citizens in the impacted states and elsewhere in the CDEMA system and the Regional Response Mechanism (RRM) which is coordinated by the CDEMA CU and includes several regional and international response partners. The response saw a higher direct engagement of UN staff with the CDEMA CU, within the Rapid Needs Assessment Teams and providing surge capacity in Dominica. Significant deployments of donor support were realized including those by Global Affairs Canada (GAC), UK Department for International Development (DFID) and United States Agency for International Development/Office of Foreign Disaster Assistance (USAID/OFDA). The Rapid Review will focus on the systems and operations of the CDEMA RRM during the Irma and Maria Events.

#### 2.0 REVIEW PURPOSE

The primary purpose of this review is to learn from the initial phase of the Hurricanes Irma and Maria response, and into the transition to early recovery (the first 8-10 weeks). Where response interventions are still being carried out this review will provide the opportunity for simultaneous feedback for immediate use in managing the response where applicable (e.g. Dominica).

The Review will seek to assess the progress of the Regional Response Mechanism and the international community in responding to humanitarian needs arising from these events. This will also examine the alignment of the response with the needs of vulnerable population groups emerging from assessments and highlight disaster risk reduction elements which were effective. This independent review will assess

# APPENDIX I Cont'd

elements of the response operations to identify lessons for the continuing programme, inform ongoing support, and guide future programming.

The RR will be a single phase intervention and will focus on assessing:

- a. the appropriateness, connectedness, effectiveness, coordination and coverage, of the humanitarian response to date,
- b. Issues of regional and international leadership in support of the national Governments including, coordination and accountability to affected populations, as enabling factors in delivering the response to Hurricanes Irma and Maria.
- c. how effectively donors are aligning delivery of the response with the Grand Bargain commitments to improve effectiveness and the quality of the response provided to affected populations
- d. document lessons from the current response and the extent to which general lessons from other responses have been applied,

Stakeholders for this evaluation who participated in the response will be consulted and are the main audience for this evaluation and will comprise those at headquarters and in the field. The CDEMA CU which is responsible for executing and managing the Regional Response Mechanism (RRM), country level officials, the Eastern Caribbean Development Partner Group- Disaster Management (ECDPG-DM and the WCDP actors), and supporting staff in the field are targeted. Beneficiaries of assistance will be included in the review.

## 3.0 METHODOLOGY

The RR will seek to examine:

- a. What worked or is working well
- b. What hasn't worked or is not working well
- c. How can improvements be made
- d. Key recommendations/actions for improving the preparedness and response

The Team will use a mixture of appropriate methods, and will triangulate data obtained. It is expected that the team will use the following methods.

- **Key informant interviews:** the Team is expected to interview senior officials, in-country staff, as well as the staff of partners responsible for programme implementation, government representatives, representatives of the affected population and civil society leaders
- **Observation:** the team will prioritize field visits to observe the evaluated programmes directly and to conduct beneficiary interviews.
- **Beneficiary interviews:** the team will interview a sample of the disaster-affected people, including different population groups **to determine** their expressed view of the programme activities. A cross-section of beneficiaries will be targeted and will include visits into their communities. Efforts will be made to interview those who have been reached and those not reached. The DFID Ground Truth Solutions intervention is a parallel but corollary activity and efforts will be made to facilitate information sharing.
- **Data analysis:** where appropriate and feasible in the RR timeframe and to include a desk review of critical documents before the field visits
- Documentary research, where appropriate and feasible.

The team will use multiple methods to triangulate their findings, and ensure that these are based on a good understanding of the current context.

The countries of investigation shall be the significantly impacted states - Antigua and Barbuda, Virgin Islands (UK), and Dominica for which field visits will be undertaken. Sub regional hubs Antigua, Barbados and Saint Lucia where the OECS is located, and a sample of actors who were also in the field and have now been extracted shall be also included in the Review. These will be contacted via telephone or online communication facilities. Given the timing of the intervention within the Atlantic hurricane season, the RR should be flexible to adjust to an emerging response.

# APPENDIX I Cont'd

## 4.0 REVIEW CRITERIA/EVALUATION QUESTIONS

The following questions are indicative and will be refined in the Operational Plan. The evaluation team should address questions under the following six (6) headings.

### i. Appropriateness and relevance

Appropriateness is the tailoring of humanitarian activities to local needs, increasing ownership, accountability and cost-effectiveness accordingly.

Relevance is concerned with assessing whether the humanitarian operations are in line with local needs and priorities (as well as government and donor policy). The evaluation team should also address the issues of whether assistance is appropriate to the protection needs of the affected population.

- What contribution has the RRM made to the response efforts?
  - o What parts of the affected population are benefitting from the response?
  - o Have coordinated assessments of the needs of the population (including different groups: men, women, girls, boys) and vulnerable groups been performed? Is the assistance meeting the different gender needs?
  - o What, if any, changes do we need to make to the RRM interventions for it to be more appropriate and relevant?
  - o How has the RRM ensured that the needs of vulnerable and marginalized persons are met?
- Which parts of the assistance have been appropriate through accountability and cost-effectiveness and why? Which were least appropriate and why?
  - o To what extent have local disaster officials been involved in the design or implementation of the humanitarian intervention?
- Are beneficiary needs changing and how?
- Have protection risks or concerns been adequately considered and mitigated in the design of assistance?

### ii. Connectedness and sustainability

Connectedness refers to the need to ensure that activities of a short-term emergency nature are carried out in a context that takes longer-term and interconnected problems into account. Connectedness has been adapted from the concept of sustainability – the idea that interventions should support longer-term goals such as recovery or development, and eventually be managed without donor input (of money, management or political support).

- Has an inclusive and well-managed coordination system been established early on, including with the national actors, and all other relevant stakeholders?
- Were activities planned in support to pre-existing response plans, structures and capacities?
- How has the response affected longer-term coping mechanisms? Is ownership being encouraged?
- What, if any, longer-term impacts are the present programme likely to have?
  - What environmental impact has the response had?
- What effect has the response had on the vulnerability of the population
- What, if any, changes could make the programme of short-term assistance a better fit with recovery and longer-term needs?
- What disaster risk reduction or preparedness measures were utilized and helpful?

### iii. Coordination

Coordination is the systematic use of policy instruments to deliver humanitarian assistance in a cohesive and effective manner. Such instruments include strategic planning, gathering data and managing information, mobilizing resources and ensuring accountability, orchestrating a functional division of labour, negotiating and maintaining a serviceable framework with host political authorities and providing leadership.

- To what extent has RRM facilitated coordination with impacted governments, regional Political Secretariats and the broader humanitarian community?
- Was the coordination system supported by an efficient communication and information management system?

# APPENDIX I Cont'd

- What internal coordination problems did the RRM face and how have they been addressed?
- What have been the biggest successes in coordination? What were the biggest gaps? What factors contributed to these successes or gaps?
- What, if any, changes could be made to improve coordination of the overall response and transition to early recovery?
- How the coordination between CDEMA was affected states and neighbouring territories? What could be recommended in terms of preparedness and response?

## iv. Coverage

Coverage is the need to reach major population groups facing life threatening suffering, wherever they are.

- How has the assistance been provided across key demographic groups and geographic locations? Which groups may have received support and which may have been excluded and why?
- What, if any, changes could be made to the programme to improve the coverage of assistance?
- Have all of those in need of security or protection received protection during the interventions?

## v. Effectiveness/Grand Bargain Commitments

Effectiveness measures the extent to which an activity achieves its purpose, or whether this can be expected to happen on the basis of the outputs. As a corollary, the Grand Bargain aims to improve the effectiveness and efficiency of humanitarian action. The new way of working speaks to the localization of humanitarian response, a process of recognizing, respecting and strengthening the leadership by local authorities and the capacity of local civil society in humanitarian action, in order to better address the needs of affected populations and to prepare national actors for future humanitarian responses.

**These will be measured across the full suite of actions.**

Key considerations will be:

- Did regional and international humanitarian actions reinforce or replace local capacity?
- What were the main operational results, and the positive and negative outcomes for all segments of the affected population, during each phase?
- What is the humanitarian system's level of commitment and compliance to standards such as:
  - In which stages in the intervention cycle were national/local players involved?
  - Were there any examples of localization of good practice?
  - Were there any examples of local good practice being adopted by regional/international partners?
- Were common factors for intervention success established by the actors in the RRM, regional and international?
- What percentage of the financial resources went directly to national, regional and international actors?
- What evidence is there that joint needs assessment, cash programming and accountability to the affected populations exists and is successful. What factors are influencing this success or hindering it?

## 5.0 CONDUCT

The RR will be an independent evaluation undertaken by the University of the West Indies (UWI), the leading education and research institution in the Caribbean. CDEMA has an existing Memorandum of Understanding with the UWI through which programme evaluations have been previously undertaken by appropriate entities within the UWI system. The UWI will be required to assemble an appropriate team of qualified personnel with a designated team leader.

The findings and recommendations emerging from the RR will represent the views of the review team and not the views of any one agency or person.

# APPENDIX I Cont'd

## 6.0 ROLES AND RESPONSIBILITIES

### 6.1 Team Composition

The evaluation field team will consist of three (3) members (Appendix 1).

A Team Leader, who has worked considerably in the Caribbean in the humanitarian field, possesses a good understanding of the international humanitarian system and has review/evaluation experience, one team member with country context experience in the humanitarian field and evaluation experience and one team member with international humanitarian expertise and experience in eliciting beneficiary feedback at all levels. Another team member with humanitarian and social science research experience will also be included.

All team members should have experience at least three (3) years in humanitarian programming, possess an understanding of the Caribbean and international context and be able to conduct humanitarian review/evaluations.

The team will be complemented by a team or persons from UWI who will be responsible for data analysis, visualisation and report packaging. A local person will be hired to undertake on-the-ground logistics through the University of the West Indies Open Campus whilst the team is in the field or another appropriate entity.

The team will decide their own fieldwork programme in consultation with the CDEMA CU and country lead contact. They will inform the evaluation manager of any problems arising from the detailed planning. For all issues related to safety and security, the evaluation team will be directed by the CDEMA CU and national DRM Focal Points.

The evaluation team will interview CU staff, local officials, beneficiaries where possible and the staff of partners. The Evaluation Team will bear in mind the heavy work load which the emergency response has already placed on staff and operational personnel and will seek to ensure that its research adds as small

a burden as possible, while fulfilling the aim of the evaluation. In particular, evaluation field visits will be combined with ongoing field operations or proposed humanitarian programmes. It is therefore expected that the team will link with other entities such as the Ground Truth Solutions Team who are contracted by DFID/UK to undertake a beneficiary feedback, the UNDP and DIPECHO representatives participating in the Post-Disaster Needs Assessment in the affected countries and other known key actors conducting work relevant to this review.

### 6.2 Management

A Regional Steering Committee (RSC) shall be established comprising representatives of but not limited to:

- The Co-Chairs of the Regional Response Mechanism (CDEMA and the UN Resident Coordinator)
- Key donor agencies supporting the response – The UK Department for International Development (DFID), the European Union (EU), Global Affairs Canada (GAC), and the United States Agency for International Development/ Office of Foreign Disaster Assistance (USAID/OFDA), United Nations Children's Fund (UNICEF)
- Civil Society
- Affected Participating States. This should be guided by the level of impact and status of existing operations that will facilitate their participation. The identified country shall determine the level or representation. Other possible external independent partner
- The Caribbean entity for advancing public administration for development – Caribbean Centre for Development Administration

The Regional Steering Committee shall be responsible for:

- i. Providing contextual and strategic insights on the response to help inform the RR;
- ii. Ensuring the overall quality and appropriateness of the RR, including its guiding principles;
- iii. Ensuring the dissemination of the RR to broader stakeholders to guide their actions

A Regional Advisory Group (RAG) shall be constituted which will include the members of the RSC, members of the Eastern Caribbean Development Partner Group (ECDPG) and development partners covering the Western Caribbean (WCDG).

# APPENDIX I Cont'd

The Regional Advisory Group shall be established to:

- i. Review and provide feedback on key deliverables. The RAG will provide written comments on the draft report within 5 days of receiving it. The content of the RR will remain the final responsibility of the evaluation team. The team should take the views of the RAG into account, and if the team takes a different approach from that recommended, this should be explained. However, the advisory entities shall have no authority to direct the evaluation or to edit the report;
- ii. Assist with stakeholder engagement, dissemination and uptake of RR findings and recommendations within their respective organisations

The CDEMA CU will coordinate the evaluation and co-chair the Steering Committee and the Advisory Group along with the UN Resident Coordinator. The Evaluation Team will be report to the Executive Director of CDEMA. The CDEMA CU will advise of the lead contact for receiving in-county visits and verbal briefings.

## 7.0 LESSONS

The evaluation team should identify what it considers to be examples of innovative good practice by the RRM.

- What examples of innovative good practice can be seen in the RRM response?
- What lessons can we draw from this response to be immediately fed back into the response programme and to inform the preparation for future response?
- What disaster risk reduction measures worked or were helpful but noting the context of the Category 5 strength of the storms.

## 8.0 RECOMMENDATIONS

The team should identify recommendations based on its conclusions and best practices. The conclusions and the underlying findings should be based on the evidence that the team has gathered in the evaluation, rather than on general principles.

The team should summarise the recommendations according to country and regional levels highlighting those for immediate and future actions. Any findings and recommendations for the country levels should be discussed in the on-the-ground country briefings, before the departure of the evaluation team. Findings and recommendations for headquarters should be discussed at the regional presentation before the report is finalized. Prioritisation of these recommendations will be undertaken by the country and regional entities.

## 9.0 DISSEMINATION

The final RR report will be made publicly available and disseminated through the affected Participating States, the Regional Advisory Group, the CARICOM Secretariat and the CDEMA Governance bodies – The Technical Advisory Committee, the Council.

The findings from the RR will therefore be used to inform the ongoing response through real-time feedback in country and learning to the affected states, the CDEMA CU, the Regional Response Mechanism and Humanitarian Country Team to enable the adoption of corrective actions as needed. The findings should also inform future humanitarian responses.

The CDM Conference December 4-8, 2017 to be convened in the Bahamas under the theme “Building Resilience through Partnerships” will receive a paper emerging from this review which will consider the findings within the context of the issues emerging from the World Humanitarian Summit (WHS) and provide a space for a broad stakeholder consideration of the issues emerging to inform good practice. Issues for consideration will also be framed for the governance bodies of CARICOM - Council of Trade and Economic Development (COTED) and the Council for Foreign and Community Relations (COFCOR) to guide all CARICOM states.

The audience will primarily be agencies and donors currently operational in the context, and secondarily; agencies, donors and bodies tasked with implementing the follow up to the Grand Bargain.

# APPENDIX I Cont'd

## 9.1 Linkages with Existing/Planned Initiatives

The RR provides a space for witnessing policy in practice during an emergency and the unique capture of information which can learn from ongoing action and inform future evaluations and system-wide learning

The RR will draw on and contribute to the work being undertaken or planned as appropriate such as the Post Disaster Needs Assessment, the specific country focus After Action Reviews, the broader Regional Response Mechanism review, the investigation into the performance of the infrastructure undertaken by the engineering personnel during the Rapid Needs Assessment Team (RNAT), the planned architectural design review through the University of Technology (Jamaica) and the UNDP sponsored building by building assessment to be undertaken in Dominica through the Faculty of Engineering - University of the West Indies.

## 10.0 WORK PLAN AND SCHEDULE

The Evaluation shall comprise three (3) phases

- A. **Inception phase** - This will be a desk review of key documentation, list of partners to be contacted, initial interviews with key stakeholders, preparation of logistics, methodology and timeframe, and Operational Plan.  
Deliverable: Operational Plan
- B. **Field phase** - This will comprise approximately 10 days in the field; interviews with key informants, observation, focus-group with beneficiaries within the affected countries at multiple sites. It will include a field-based consultation to present and discuss preliminary findings and recommendations and receive country feedback.  
Deliverable: Presentation on preliminary findings and recommendations.
- C. **Reporting phase** - The team will prepare the draft findings based on feedback from the local consultation and to include good practices, common issues and emerging lessons and recommendations for the Hurricanes Irma and Maria response and future responses.

The findings will be presented and reviewed by the CDEMA CU, the Regional Steering Committee, the Regional Advisory Group and other members of the response team who will provide immediate feedback and written comments within 5 days. The team will present the preliminary findings to the CDM Conference and then have two weeks to prepare a draft report for sharing with stakeholders and the Advisory Group who shall provide written comments. The report should be revised and resubmitted within seven (7) working days to maintain momentum.

Translation of the final report in French and Dutch to reflect all the languages within CARICOM should be agreed in advance.

**Deliverables:** Draft and final report



# APPENDIX I Cont'd

## 10.1 Key phases and timelines in the evaluation process

	Key point	Date	Comments
<b>Inception</b>	Initiation Briefings with Contractor	1 day after signing	
	Desk Review and development of Operational Plan	One week after signing	Should include the interview guide developed by the Team
Field Phase	Field visits to selected impacted countries and telephone calls with the sub regional focal points and sample of humanitarian actors who rotated in and out of theatre	Immediately after completion of Operational Plan	
<b>Reporting Phase</b>	Presentations of Initial Findings to CDEMA CU, and Advisory Group	1.0 weeks after Field Visits	
	Presentations to CDM Conference [RR and WHS Related Issues]	December 4-7, 2017	
	First draft RR report	2.0 Weeks after CDM Conference	
	Other presentations – COTED	January 2018	
	Final RR Report and updated presentation	January 2018	
	End of contract	January 31, 2018	



# APPENDIX I Cont'd

## 10.2 Outputs

The team shall provide the following outputs by the dates specified in the list of key points in the evaluation.

Output	Description
<b>Operational Plan</b>	<b>A brief report of 1,500 to 3,000 words setting out:</b> <ul style="list-style-type: none"> <li>• A brief summary of the team’s understanding of the context and intervention</li> <li>• the detailed itinerary for fieldwork</li> <li>• the team’s data-collection plan</li> <li>• the planned methodology</li> </ul> The team’s planned interview guide or guides should be annexed.
<b>Preliminary in-country briefing</b>	<b>A presentation setting out the evaluation findings, conclusions and recommendations.</b>
<b>Draft and Final Evaluation report</b>	An evaluation report with the following structure: <ul style="list-style-type: none"> <li>• executive summary of 1,500 words or less (this should not be included in the draft report, to encourage recipients to comment on the whole report and not just the summary)</li> <li>• table of contents</li> <li>• map, showing the areas visited by the team</li> <li>• list of acronyms</li> <li>• methodology (a brief chapter of no more than 1,000 words)</li> <li>• core report of 12,000 words or less with chapters structured to answer the questions listed in the terms of reference; each chapter should present the conclusions drawn from the material discussed and the recommendations as a result. It will summarise the recommendations according to country and regional levels highlighting those for immediate and future actions.</li> <li>• Annexes should include:               <ul style="list-style-type: none"> <li>◦ terms of reference</li> <li>◦ a list of the persons interviewed</li> <li>◦ the team’s itinerary</li> <li>◦ the guided questions utilised</li> <li>◦ a bibliography of any written sources used</li> </ul> </li> </ul>
<b>Oral briefings</b>	<b>The team leader will provide oral briefings for the national governments and for CDEMA CU, ECDG and WCDG as arranged.</b>

# List Of Persons Interviewed

Hurricanes Irma And Maria Rapid Review Team - Stakeholder List							
Name	Sex	Position/ Agency	Interview Details		Country	Cell #	Email
			Method	Place			
Elise Phillip	F	Statistics Officer, ABDI	Focus	NODS	Antigua	268-- 7367747	wandablassf@gmail. com
Orecia Francis- Joseph	F	Logistics Officer Communications	Focus	NODS	Antigua	268-724- 2530	demelano@hotmail. com
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Deputy Commissioner	M	Antigua Police Force	Focus	NODS	Antigua	268-464- 8961	Atleezo@hotmail. com
Helen Frett	F	Director, BVI Res Cross	Face to face	BVI Red Cross	BVI		
Kristi Creque	F	DDM Data Management Officer	Focus	DDM	BVI		kacreque@gov.vg
Philmore Mullin	M	Director, NODS	Face to Face	NODS	ANU		
Prime Minister and Cabinet Antigua		Head of Cabinet	Focus	Cabinet Office	ANU		
Dr. The Honourable Orlando Smith	M	Premier	Face to Face	Premier's Office	BVI		
Asheed Thomas	M	DDM Senior Administrative Officer	Focus	DDM/NEOC	BVI		althomas@gov.vg
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Sheniah Armstrong	F	DDM Preparedness Planning Officer	Focus	DDM/NEOC	BVI		sarmstrong@gov.vg
Janisha Sergeant	F	DDM Senior Executive Officer	Focus	DDM/NEOC	BVI		jsergeant@gov.vg
Cecil Jeffery	M	DDM Community Relations Officer	Focus	DDM/NEOC	BVI		Cjeffrey@gov.vg
Alicia Joseph	F	DDM Senior Executive Officer	Focus	DDM/NEOC	BVI		ajoseph@gov.vg
Melanie Daway	FM	DDM Professional Cadet	Focus	DDM/NEOC	BVI		mdaway@gov.vg

# List Of Persons Interviewed Cont'd

## Hurricanes Irma And Maria Rapid Review Team - Stakeholder List

Name	Sex	Position/ Agency	Interview Details		Country	Cell #	Email
			Method	Place			
Jasen Penn	M	DDM Emergency Communications Manager (ag)	Focus	DDM/NEOC	BVI		japenn@gov.vg
Sharleen DaBreo	F	Director DDM	Face to Face	DDM/NEOC	BVI		sdabreo@gov.vg
Broderick Penn	M	Coordinator Disaster Recovery Coordinating Committee	Face to face	DDM/NEOC	BVI		brpenn@gov.vg
Shaina Smith	M	MoHSD Relief and Logistics focal point	Face to face	DDM/NEOC	BVI		shainaprojects@bvi.com
Annie Malone-Frett	F	Chief Social Development Officer	Face to face	Social Development building	BVI		amalonefrett@gov.vg
Resherma Lyons	F	Shelter Manager	Face to face	Multi-Purpose Sports Complex Shelter	BVI		
David Foot	M	HM Prison	Telephone		BVI		DFoot@gov.vg
Dr J.M. Samuel	F	Health Services Authority	Face to face	DDM/NEOC	BVI	284-346-1591	JUsmauel@bvihsa.vg
Tasha Bertie	F	Deputy Secretary MOH & SD	Face to face	DDM/NEOC	BVI	284-468-9137	tbertie@gov.vg
Marie Spaak	F	OCHA Head Emergency Coordination	Face to face	Fort Young	Dominica		spaak@un.org
Jennie Trow	F	OCHA IM	Face to face	Fort Young	Dominica		trow@un.org
Marco Selva	M	WFP Head of Mission	Face to face	Fort Young	Dominica		Marco.selve@wfp.org
Chiara Dara	F	WFP Programme Officer	Face to Face	Fort Young	Dominica		Chiara.dara@wfp.org
Giuseppe Linardi	M	WFP Logistics officer	Face to face	Fort Young	Dominica		Giuseppi.linardi@wfp.org
Sarah Lumsdon	F	DFID Humanitarian Advisor	Face to face	Fort Young	Dominica		
Juline Charles	M	Police	Focus	NEOC	Dominica	767-277-7210	Princes_charles10@hotmail.com

# List Of Persons Interviewed Cont'd

## Hurricanes Irma And Maria Rapid Review Team - Stakeholder List

Name	Sex	Position/ Agency	Interview Details		Country	Cell #	Email
			Method	Place			
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Fitzroy Pascal	M	ODM	Face to face	NEOC	Dominica	275680	ODM@dominica.gov.dm
Joanne Commodore	F	PS Ministry Justice	Face to Face	Ministry Offices	Dominica		
Rayburn Blackmoore	M	Minister	Face to Face	Ministry Offices	Dominica		
Reginal Austrie	M	Acting Prime Minister	Face to Face	Office	Dominica		
Jon Horler	M	Ground Truth Solutions	Face to face	Fort Young	Dominica		jon@groundtruthsolutions.org
Jaimie Ogivie	M	JDF	Face to Face	Ministry of National Security	Dominica		
Diane JHariah-Robinson	F	Emergency Coordinator - CARITAS	Face to face		St Lucia/	758-717-9598	Deha472@hotmail.com
Claudette JD Samuel Henry	F	Logistics Officer, ABDT	Focus	NODS	Antilles	284-772-5664	Alecia@hotmail.com
Joclyn Lance	F	ECHO	Tele-Meeting		Antigua		joclyn.lance@echofield.eu
Peter Muller	M	OCHA	Face to Face				
Sergio da Silva	M	UNDAC	Face to Face				
Dr. Aloys Kumaragiye	M	UNICEF	Face to face	UWI	Barbados		akamuragiye@unicef.org
Muriel Mafico	F	UNICEF	Face to face	UWI	Barbados		mmafico@unicef.org

# List Of Persons Interviewed Cont'd

## Hurricanes Irma And Maria Rapid Review Team - Stakeholder List

Name	Sex	Position/ Agency	Interview Details		Country	Cell #	Email
			Method	Place			
Unai Sacona	M	UNICEF	Face to Face	UWI	Barbados		usacona@unicef.org
Virginie Andre	F	ECHO	Tele-Meeting		Nicaragua		virginie.andre@echofield.eu
Pascal Ledroit	M	EEAS	Face to Face	CDEMA CU	Barbados		pascal.ledroit@eeas.europa.eu
Stephen O'Malley	M	UN Resident Coordinator, Barbados And OECS [	Face to Face	CDEMA Coordinating Unit	Barbados		Stephen.omalley@one.un.org
Joanne Persad	F	Programme Manager Preparedness and Response	Face to Face	CDEMA Coordinating Unit	Barbados		Joanne.persad@cdema.org
Ronald Jackson	M	Executive Director	Telephone	CDEMA Coordinating Unit	Barbados		Ronald.jackson@cdema.org
Stijn Aelbers	M	Coordinator, CDAC	Face to Face				
Henk Verdenk	M	UNICEF	Face to Face				
Clive Lorde	M	USAID	Face to Face	CDM 1o	Bahamas		
Cecil Shillingford	M	USAID	Face to Face	CDM 10	Bahamas		
Melissa Meade	F	Anguilla Director of DDM	Face to Face	CDM 10	Bahamas		
David Farrell	M	Principal CIMH	Face to Face	Antigua/ CMO Directors Meeting			dfarrell@cimh.edu.bb
Errington Shurland	M	Director RRS	Phone		BGI		exedir@rss.org.bb
Josephine Shields Recas	F	Head Country Cluster Support Team, IFRC Caribbean	Skype		TNT		shieldsrecas@ifrc.org
Dana Van Alphen	F	PAHO	Phone		Barbados		
Marion Ducasse	F	PAHO	Phone		Barbados		
Mandela Christian	M	CDEMA CU	Phone		Barbados	767-225-8149	Mandela.christian@cdema.org
Natalie Hutchinson	F	GAC	Face to face		Barbados		natalie.hutchinson@international.gc.ca





# APPENDIX III

## GUIDANCE QUESTIONS



	GUIDANCE QUESTIONS	METHODS	EVIDENCE	FINDINGS	RECOMMENDATIONS
1.1	What contribution has the RRM made to the response efforts?				
1.1.1	How did the RRM perform? What worked well? What challenges were encountered? How do we change things that didn't work and enhance those that did?				
1.1.3	How has the RRM facilitated meeting the needs of vulnerable persons? Children, aged?				
1.2	Of the assistance you received which items or services were most useful? How could they have been made more useful? What was the least useful aid you got?				
1.2.1	In what ways were local disaster officials involved in the design or implementation of the humanitarian intervention? How useful were these and what changes would be recommended?				
1.3	Are beneficiary needs changing and how?				
1.4	What risks were there to the operations? Have they been adequately considered and mitigated in the design of assistance?				
2.1	Are long term coping mechanisms being put in place?				
2.2	Are recovery considerations incorporated in needs assessments and relief operations?				

# APPENDIX III

## GUIDANCE QUESTIONS CONT'D

	GUIDANCE QUESTIONS	METHODS	EVIDENCE	FINDINGS	RECOMMENDATIONS
2.3	What, if any, longer-term impacts is the present programme likely to have?				
2.3.1	What environmental impact has the response had?				
2.4	What effect has the response had on the vulnerable populations – children and aged?				
2.5	What, if any, changes could make the programme of short-term assistance a better fit with recovery and longer-term needs?				
3.1	How would you characterize the RRM facilitated coordination with impacted governments, regional Political Secretariats and the broader humanitarian community?				
3.2	What coordination problems did the RRM face and how were they addressed?				
3.3	What have been the biggest successes in coordination? What were the biggest gaps? What factors contributed to these successes or gaps?				
3.4	What, if any, changes could be made to improve coordination of the overall response and transition to early recovery?				
3.5	Was the response and relief operations supported by timely communication and information sharing?				
4.1	How has the assistance been provided across key demographic groups and geographic locations? Which groups may have received support and which may have been excluded and why?				
4.2	What, if any, changes could be made to the programme to improve the coverage of assistance?				

# APPENDIX III

## GUIDANCE QUESTIONS CONT'D

	GUIDANCE QUESTIONS	METHODS	EVIDENCE	FINDINGS	RECOMMENDATIONS
5.1	Did regional and international humanitarian actions reinforce or replace local capacity?				
5.1.1	In which stages in the financial intervention cycle were national/local players involved?				
5.1.2	Were there any examples of localization of good practice?				
5.1.3	Were there any examples of local good practice being adopted by regional/international partners?				
5.2	Were common factors for intervention success established by the actors in the RRM?				
5.3	What percentage of the financial resources went directly to national, regional and international actors?				
5.4	What evidence is there that joint needs assessment, cash programming and accountability to the affected populations exists. What factors are influencing or hindering these?				



# APPENDIX IV

## LIST OF DOCUMENTS CONSULTED

1. A post-disaster map of Caribbean politics and aid status - 27 September 2017
2. Address to the Nation - October 6 2017
3. As Local As Possible, As International as Necessary: Humanitarian Aid International's Position on Localisation
4. British Virgin Islands Situation Report #1 Hurricane Irma
5. British Virgin Islands Situation Report #2 Hurricane Irma
6. British Virgin Islands Situation Report #3 Hurricane Irma
7. Caribbean Regional Response Mechanism Regional Response Plan 2017
8. CARICOM Disaster Relief Unit (CDRU) 2017 Training Facilitator's Handbook 29th May – June 02 2017
9. Cash-strapped LIAT appeals for hurricane relief for itself - Barbados Today
10. CDEMA Coordinating Unit Contingency Plan January 2017
11. CDEMA Focus Group Meeting Antigua 16 November 2017
12. CDEMA Hurricane Maria Post-Disaster Needs Assessment draft for Antigua and Barbuda
13. CDEMA Hurricane Maria Post-Disaster Needs Assessment draft for Dominica
14. CDEMA Operations Plan for Hurricane Irma
15. CDEMA Operations Plan for Hurricane Maria
16. CDEMA Situation Report #1 Hurricane Irma
17. CDEMA Situation Report #1 Hurricane Maria
18. CDEMA Situation Report #2 Hurricane Irma
19. CDEMA Situation Report #2 Hurricane Maria
20. CDEMA Situation Report #3 Hurricane Irma
21. CDEMA Situation Report #3 Hurricane Maria
22. CDEMA Situation Report #4 Hurricane Irma
23. CDEMA Situation Report #4 Hurricane Maria
24. CDEMA Situation Report #5 Hurricane Irma
25. CDEMA Situation Report #5 Hurricane Maria
26. CDEMA Situation Report #6 Hurricane Irma
27. CDEMA Situation Report #6 Hurricane Maria
28. CDEMA Situation Report #7 Hurricane Irma
29. CDEMA Situation Report #7 Hurricane Maria
30. CDEMA Situation Report #8 Hurricane Irma
31. CDEMA Situation Report #8 Hurricane Maria
32. CDEMA Situation Report #9 Hurricane Irma
33. CDEMA Situation Report #9 Hurricane Maria
34. CDEMA Situation Reports Hurricane Maria
35. CDEMA's Operational Plan for Hurricane Irma September 05 2017
36. CDEMA's Operational Plan for Hurricane Maria September 26 2017
37. CDRU Facilitator's Handbook
38. Commonwealth of Dominica Post Disaster Needs Assessment Hurricane Maria, November 2017
39. Communication and Community Engagement Local Media Dominica Overview – October 2017
40. Communication and Community Engagement Local Media Dominica Overview – 8 November 2017
41. Communication and Community Engagement Toolbox
42. Damage Assessment in Antigua and Barbuda, Hurricane Irma

# APPENDIX IV

## LIST OF DOCUMENTS CONSULTED

43. Damage Assessment in Dominica, Hurricane Maria
44. Date: 17 November 2017
45. Displacement Tracking Matrix Hurricane Maria Round 2 06 November 2017
46. Distillation of Interview with Philmore Mullin, NDC, Antigua and Barbuda
47. Dominica Distribution Tracking
48. Dominica General Food Distribution Plan 22 October 2017
49. Dominica Hurricane Maria Situation Report #11
50. Dominica Hurricane Maria Situation Report No. 8
51. Dominica Physical Access Constraints of 4 November 2017
52. Dominica: A Caribbean island rebuilds “from zero” - 22 September 2017
53. Dominica: Hurricane Maria 2017
54. Donor club set to snub Britain on Caribbean “aid”- 30 October 2017
55. Draft Regional Coordination Centre Standard Operating Procedures January 2015
56. Draft Dominica Rapid Needs Assessment Team Report 29 September 2017
57. ECDG/DM Operations Plan 2017
58. ECHO Hurricane Response Maria and Irma
59. ECHO Response Hurricane Maria and Irma
60. Emergency Appeal Revision Dominica – Hurricane Maria
61. Emergency Plan of Action Operations Update – Dominica – Hurricane Maria
62. Emergency Plan of Action Operations Update Dominica – Hurricane Maria Update 2
63. EOC International Coordination Meeting 7 November 2017
64. EOC Meeting with International Organisations – Dominica Hurricane Maria 2017
65. EOC Meeting with International Organisations – Office of Disaster Management, Jimmit
66. Extremely Dangerous Cat 4 Irma Headed for Florida – Weather Underground - 8 September 2017
67. Final Rapid Needs Assessment Team Report 18 September 2017
68. Gonsalves describes St Vincent as “disaster prone” in climate change seminar opening remarks- 17 September 2014
69. Grand Bargain (hosted by the Inter-Agency Standing Committee)
70. Ground Truth Solutions Hurricane Irma Response Trip Report October 2017
71. Humanitarian Exchange #52 October 2011
72. Hurricane and Tropical Cyclones - Weather Underground – 5 September 2017
73. Hurricane Irma Ground Truth Solutions Survey of People Affected by Hurricane Irma in Antigua and Barbuda
74. Hurricane Irma Humanitarian Snapshot, Antigua and Barbuda
75. Hurricane response: Caribbean disaster agency comes of age - 28 September 2017
76. Hurricanes Irma and Maria are uniting the Caribbean. But for how long? – 26 September 2017
77. Information Note for Hurricanes Irma and Maria RR Team
78. Inter-agency Real Time Evaluation in Haiti: 3 months after the earthquake
79. Inter-Agency Team Evaluation of Humanitarian Response to Pakistan’s 2010 Flood Crisis
80. Internal Contingency Plan for the CDEMA Coordinating Unit - Standard Operating Procedures for the Regional Coordination Centre
81. Interview Notes with AloysKumaragiye, Muriel Mafico and UnaiSacona, UNICEF
82. Interview Notes with Col O’Gilvie, Jamaica Defence Force
83. Interview Notes with Jennie Trow, OCHA

# APPENDIX IV

## LIST OF DOCUMENTS CONSULTED

84. Interview Notes with Josephine Giles-Reccao
85. Interview Notes with Virginie Andre, Joclyn Lance, Pascal Ledrot, European Union
86. Letter from Andrew Mitchell (Department for International Development) to Irwin LaRocque
87. Localisation of NGOs: Different Interpretations Different Outcomes
88. Observations from the Virgin Islands RR Mission
89. Rapid Damage and Impact Assessment Tropical Storm Erika – 27 August 2015
90. Regional Coordination Plan revised 2017
91. Regional Response Mechanism booklet
92. Regional Response Plan for the Caribbean: Urgent Needs at 1 month
93. Revised draft CDAC Terms of Reference
94. Revised draft COST Terms of Reference
95. RTE of CDEMA Interview with Jon Horlen
96. RTE of CDEMA Interview with Kathleen Pinard-Byrne/Stephen McAndrew, Red Cross
97. RTE of CDEMA Interview with StijnAelbers
98. RTE of CDEMA Interview with UNDP, Stephen O'Malley
99. RTE of CDEMA Interview with UNICEF, HenkVerdenk
100. RTE of CDEMA Interview with WFP, Marco Selva, Chiara Dara, GuiseppiLinardi
101. RTE: Contribution to System-wide earning and accounting
102. RR Irma/Maria Interview Notes, Elizabeth Riley, CDEMA Coordinating Unit
103. RR Irma/Maria Interview Notes, Joanne Persad, CDEMA Coordinating Unit
104. Savingram CDEMA Hurricane Irma and Maria Impact on CDEMA Participating States
105. Situation Monitoring 7 November 2017
106. Some Inputs on EU Response Irma and Maria
107. St. Vincent PM says ACS has a role to play in disaster mitigation in the Caribbean – 1 November 2017
108. Status of RM Hard Cash Pledges – Antigua & Barbuda and St Kitts Nevis – Hurricane Irma
109. Status of RM Hard Cash Pledges – Costa Rica – Floods
110. Status of RM Hard Cash Pledges – Cuba – Hurricane Irma
111. Status of RM Hard Cash Pledges – Dominica – Hurricane Maria
112. The Caribbean Regional Response Mechanism Regional Coordination Plan 2017
113. The Catch-22 delaying the reconstruction of hurricane-hit Barbuda – 31 October 2017
114. The Invisible Toll of Trauma and Stress From Storms Like Harvey – 31 August 2017
115. Treaty on Security Assistance among CDEMA Member States
116. UN appeals for aid for Caribbean countries devastated by recent hurricanes – 3 November 2017
117. UN Hurricane Maria Dominica Situation Report #1
118. UNICEF Eastern Caribbean Humanitarian Situation Report #11
119. UNICEF Global Evaluation Report Oversight System Review
120. UNICEF Irma and Maria Response Field Presence
121. World Food Programme Hurricane Irma/Maria Situation Report 10
122. World Food Programme Hurricane Irma/Maria Situation Report 11
123. World Food Programme Hurricane Irma/Maria Situation Report 8
124. World Food Programme Hurricane Irma/Maria Situation Report 9

# APPENDIX V

## REFERENCES



Blank, W. and Parker, B. 2017. A post disaster map of the Caribbean politics and aid Status. IRIN. September 27, 2017. <https://www.irinnews.org/feature/2017/09/27/post-disaster-map-caribbean-politics-and-aid-status>.

CARICOM 2017. Caribbean can only 'build back better' with international support and urgent climate action, UN, CARICOM Chiefs and Heads of Government. Press Releases | (<http://caricom.org/media-center/communications/press-releases/>) 21 November 2017.

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Dolce, C. 2017. Hurricanes Irma and Maria a Rare Atlantic Category 5 Pair in the same Year. Weather Underground blog. September 19, 2017.

EU 2017: Hurricanes Irma and Maria in the Caribbean CP&HA Perspective. Undated Power point Presentation, European Commission

Gonsalves, R. 2017. Address to the 4th OECS Climate Change Seminar. September 17. Caribbean360. Downloaded 11/1/2017.

IOM 2017. Displacement Tracking Matrix (DTM) – Dominica Hurricane Maria Response Round 2 – 6 November 2017

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Parker, B. 2017. Hurricane Response: Caribbean Disaster Agency comes of age. IRIN, September 28. <http://www.irinnews.org/analysis/2017/09/28/hurricane-response-caribbean-disaster-agency-comes-age>.

Skerritt, R. 2017. Address to the Nation. Friday, October 6, 2017.



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