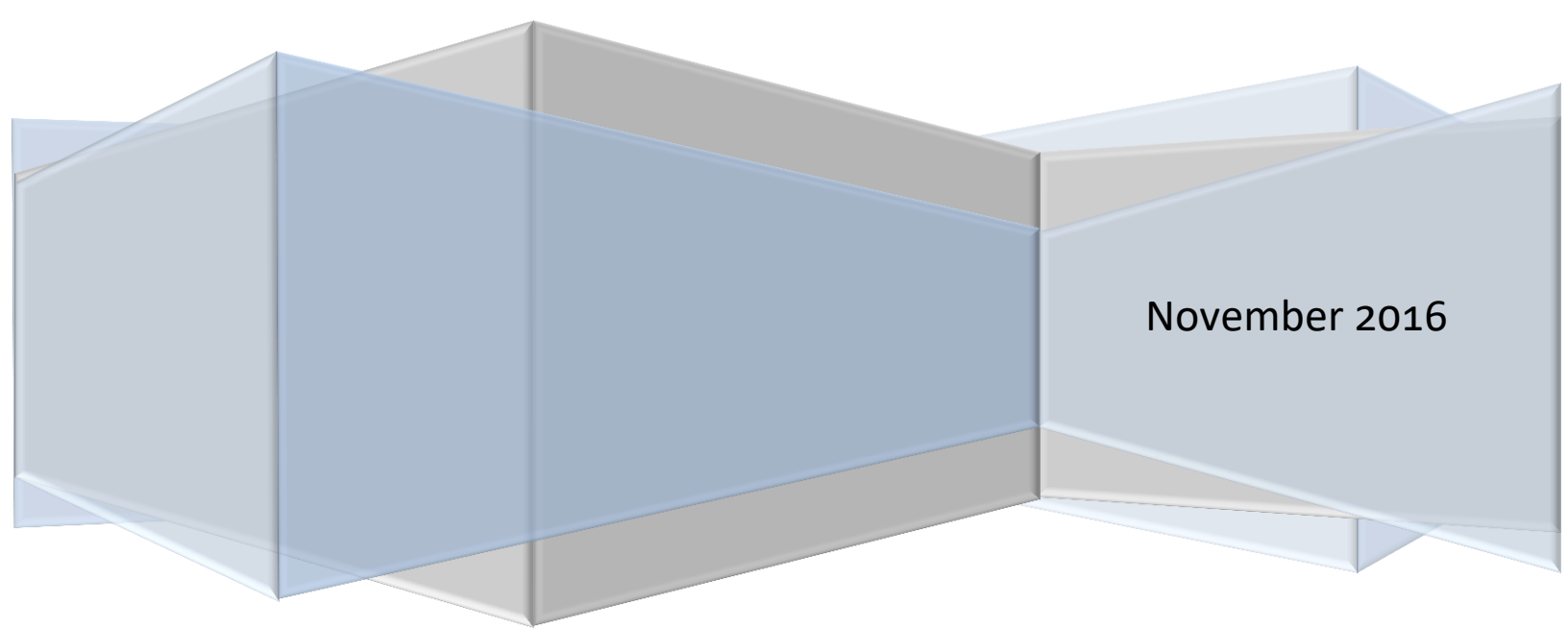


Updates on Disaster Risk Reduction Priorities for the Caribbean

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The CDM Signature Event was organized by the Caribbean Disaster Emergency Management Agency (CDEMA), the Disaster Emergency Management (DEM) in Barbados, the United Nations Office for Disaster Risk Reduction (UNISDR), the United Nations Development Programme (UNDP) in Barbados and OECS as well as the International Federation of Red Cross and Red Crescent Societies (IFRC).

Special recognition must be made to those countries that supported the process by identifying and sharing their top-three national DRR priorities: Anguilla, Barbados, Cuba, Dominica, Grenada, Guyana, Haiti, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, Turks and Caicos Islands, Virgin Islands.

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Caribbean Disaster Risk Reduction Priorities

In preparation to the Caribbean Disaster Management (CDM) Signature Event “Annual Achievements and Priorities in Disaster Risk Reduction (DRR) in the Caribbean” that took place from 22 to 23 November 2016 in Barbados, countries reviewed their national DRR priorities and come up with their top three national priorities. Basis for these reviews were for example CDM Country Work Programmes and DRR priorities identified in 2014 within the process of preparing the DRR country document by applying the “Set of criteria to identify DRR priorities”. During the CDM signature event a discussions on achievements and gaps informed the process further.

Building on these top three national priorities (see Annex 1) that were presented during CDM signature event, five regional priorities were identified based on communalities. As a second stage, participants agreed on concrete / realistic /achievable activities for each priority area at the regional level.

In the overall process, the connection to the priority areas of the CDM strategy and the Sendai Framework was ensured by identifying the CDM outcome indicators (see Annex 2) / Sendai priority action for each DRR priority.

The DRR priorities are representing the immediate needs¹ in the region to enhance the implementation of the CDM strategy and the Sendai Framework in the Caribbean. In this sense, countries and organizations working in the Caribbean can be guided by these areas identifying the focus of support. The priority areas and actions are an input to overall regional priorities.

The following five priority areas emerged from the discussions:

- a. Early Warning Systems (EWS)
- b. Community Resilience
- c. Capacity Building, Training and Public Awareness
- d. Institutional Strengthening
- e. Private-Public Partnership

As is relates to **strengthening EWS in the Caribbean** it was highlighted that a lot activities have already been undertaken by a number of entities but that these are not harmonized and only addressing some parts of the EWS not comprehensive looking at all levels or only covering some communities or areas. It will be critical to have a regional harmonized, comprehensive and purpose-built approach to EWS in the Caribbean region. The outcomes of the regional EWS workshop² as well as the EWS desk review³ are important guiding documents for moving forward and there are opportunities to learn from successes in Cuba. It was further mentioned that it is critical to reinforce community-based EWS that feed into the national EWS and the national connect to the community-based systems. Such mechanism is currently not existent although progress has been made.

In relation to **community resilience** it was also noted the various investments have been undertaken but the challenges are associated with a project approach vis-a-vis a programmatic approach. This resulted in

1 Although the priorities are immediate the related activities shall be implemented immediately action starting in 2017, others have a longer term horizon spanning for example five years. For partners interested in submitting proposals under the ECHO 2017 HIP, it is highly advised to take these priorities into account.

2 <http://eird.org/americas/caribbean-early-warning-system-workshop-in-barbados/ews-workshop-report-final.pdf>

³ Link will be provided shortly.

successful project results but fragile connections with the national level. It was therefore suggested to integrate community resilience programmes within the national programme and to develop and promote a minimum community resilience standard in the region.

Concerning **capacity building and public awareness raising** it was acknowledged that efforts have been undertaken in the past and that the need for each country differs. Nevertheless, there is a need for training in several areas⁴ and the need for advancement of public education and awareness taking stock of good lessons already existing in the region.

Institutional Strengthening remains a priority for the region and it was highlighted that this is also reflected in various ways in the CDM Country Work Programming and related Monitoring and Evaluation Frameworks. It is also recognized that this will underpin all the actions identified for advancement.

There is a great interest in strengthening **public-private-partnerships** to advance DRM in the region and also to sustain initiatives.

Validation by Audit CDM tool findings

These priorities were also validated by the results emerging from the application of the CDM Audit Tool⁵ 2015-2016. These findings are based on an analysis of the CDM Audit tool results in six countries. Four out of the five priority areas fall under Audit tool preparedness and only the partnership between public and private sector fall under mitigation.

Institutional strengthening links to governance in the Audit tool and it is made reference to the fact that the integration of CDM into national sector policies and work plans as well as having sectoral legislation mandating CDM responsibilities are very weak areas to be addressed. It further mentions that proper planning frameworks are weak because sectors in countries generally lack disaster plans which are congruent with national and community CDM plans.

Under the point **community resilience** the Audit states that is generally weakly addressed among Caribbean countries. Although the level HFA Priority Outcome 4 has been adapted within countries it is generally described as low. There are for example low levels of community organization with 67% of countries not having a well-defined community resilience programme.

In terms of information, **public awareness** progress is ongoing and emphasis need to be placed on gender issues and vulnerable groups and evaluating their effectiveness. It further refers to the need to enhance management of CDM knowledge and experience with regards to accessing regional networks of CDM knowledge collection and the critical area of formal succession planning within NDOs to ensure knowledge transfer. Community resilient enhancement programmes are in place but needs to be strengthened by implementing CDM familiarisation and training programmes for senior officials/leaders.

⁴ Examples: Additional training for Marine and Urban Search and Rescue (TCI & BVI & Anguilla), TCI Training for volunteers, capacity building of the private sector in Barbados.

⁵ The CDM Audit tool is composed by five questionnaires: Mitigation, Preparedness A, Preparedness B, Response and Recovery. Each of them represents a phase of the Disaster Management Cycle is divided into components, and then sub-divided into key elements which are further divided into sub-elements.

As it relates to **EWS** the Audit confirms that EWS are in place but needs to be addressed in terms of raising public awareness of what these are and to link community systems to national ones. There is need for enhancement of early warning systems and confidence in these systems.

The relationship between the **private and public sector** is partly mentioned in the risk transfer section: Formal and informal training is available and ongoing in countries for both public and private sectors. This needs to be strengthened by providing additional training to NDO staff. Incentive measures are needed to encourage mitigation in the private sector.

The national as well as the regional priorities areas identified speak to all CDM Regional Outcome areas as well as to the Sendai Framework Priority Actions. Even if these areas are encountered under the CDM strategy, please note that Cuba and Dominican Republic as no Participating State of CDEMA, also identified these common areas as a priority.

DRR Priority	Link to CDM regional outcome & Indicator / Sendai priority Action	Recommended Action to address priority	Timeline for priority and action	Follow up / Lead organization
Early Warning Systems	CDM RO4.3 SENDAI P4	<ul style="list-style-type: none"> - Advance EWS workshop findings and recommendation⁶ - Update EWS desk review including all CDEMA Participating States in the consultation - Harmonization of efforts to enhance EWS in the Caribbean - Identify sources of financing for sustainability of EWS - Transition EWS to CAP Protocol for states - Develop protocols for community based EWS linked to CAP - Strengthen the ties between the surveillance and the stakeholders - Integration of methods to reach vulnerable groups in EWS - Developing a set of indicators for EWS that can be applied by any country in the region that will allow for evaluation of each system, comparison, transfer of knowledge and more importantly ease of reporting on progress along similar lines. - Improved communication equipment and tools to scale up at the regional level - Link risk studies to EWS to facilitate decision making 	<p>Continuous</p> <p>Finalized by December 2016</p> <p>Continuous</p> <p>Continuous</p> <p>Continuous 2020</p> <p>Continuous</p> <p>Start 2017</p> <p>2019</p>	<p>CDEMA, NDOs, Regional Technical working group IFRC/UNDP Barbados CDEMA, NDOs</p> <p>NDOs, CDEMA, others UNDP, IFRC; NDOs</p> <p>CDEMA, NDOs</p> <p>CDEMA in consultation with all stakeholders</p>
Community Resilience	CDM RO2.3 SENDAI P1 CDM PA1 (this will contribute to RO1.2) SENDAI P2	<ul style="list-style-type: none"> - Promote and fund Community Emergency Response Team (CERT) Programme - Develop and promote a minimum community response standard and sustainability guidelines across the region and based on existing tools - Effectively integrate Community Emergency Response Team (CERT) Programme with the national programme - Adopt a comprehensive resilience assessment tool to support prioritization and the design of community resilience programs going beyond 	3-5 years	IFRC, CDEMA, NDOs, local governments

⁶ <http://eird.org/americas/caribbean-early-warning-system-workshop-in-barbados/ews-workshop-report-final.pdf>

		<p>DRR</p> <ul style="list-style-type: none"> - Map existing programs of community' resilience - Mapping of volunteer groups and volunteer groups based on each country and integrate vulnerable groups - Strengthening/Standardizing the use of Vulnerability Assessment (training based on Cuban Hazard, vulnerability and risk (HVR) Studies approach & the Strategic Targeting Methodology (STM)⁷ methodology through a partnership between CDEMA Regional Training Centre and AMA/CITMA Capacity Building Centre in Cuba to promote this initiative) - Strengthen governance arrangement that allow for sustainability of community resilience initiatives (e.g. training on Risk Reduction Management Centers⁸ in Cuba and expanding on this in the English Speaking Caribbean) 		
Capacity Building, Training and public Awareness	CDM regional priority 2 & 4	<ul style="list-style-type: none"> - Further DRM education in schools and pre-schools - Incorporate DRR into school curricula at all levels - Develop sustained education programmes in collaboration with various actors - Identify champions for DRR and engage them in developing DRR public education work programmes for execution to particular stakeholder grouping - Develop and roll out gender sensitive and multi-hazard public awareness campaigns - Provide training for Search and Rescue units 	<p>Continuous</p> <p>2020</p> <p>Continuous</p> <p>Continuous</p> <p>Continuous</p> <p>Continuous</p>	NDOs & Ministries of Education, CDEMA
Institutional Strengthening	CDM: 1.4.; 2.3; 2.4 SDF: Priority 3 (a)	<ul style="list-style-type: none"> - Develop a model of legislation, regulation and policy to manage risk and advocate for the adoption at the regional level, for all sectors - Establishment of chairs at appropriate universities within the region to coordinate risk engineering research specific to the region aligned with the needs for the countries' 	5 years	CDEMA/CU, UNDP, Educational Institutions, SDF focal points, NDOs, Civil Society, international organizations as applicable

⁷ http://www.preventionweb.net/files/48260_stmguidelinescorrected2.pdf

⁸ <http://www.preventionweb.net/publications/view/14963>

		<p>education and training needs</p> <ul style="list-style-type: none"> - Encourage the establishment of a regional training center - Implement the Global School Safety Framework (CDEMA's Model Safe School Programme) throughout the region with a view to harmonization of approaches to school safety - Provide to the regional institutions methodological tools based on existing risks scientific knowledge for the decision making 		
<p>Private-Public Partnership</p>	<p>CDM Regional Outcome Area 3 Sendai Priority Action 3</p>	<ul style="list-style-type: none"> - Advance Business Continuity Planning - Develop a strategy for engaging the private sector in any action or programme - Engage private sector directly in advancing disaster risk reduction efforts (e.g. Create a regional private sector network on DRR & launch ARISE in the Caribbean region promoting the collaboration between National Disaster Management Offices and National Chambers of Commerce) 	<p>2017 Started in 2016 at the regional level Started in 2016</p>	<p>CDEMA, UNISDR, NEMOs and national chambers of commerce, private sector entities with support by organizations such as IFRC/Red Cross societies and others</p>

Annex 1: National and sub-regional priorities that were basis for the identification of the regional priorities

Anguilla

DRR Priority	Link to CDM regional outcome & Indicator / Sendai priority Action	Recommended Action to address priority	Timeline for priority and action	Follow up / Lead organization
Emergency communications equipment and systems in place and functional	CDM Regional Outcome 2 Output 2.2	Maintain our communication equipment Anguilla Warning System (AWS) is in place and functioning 1 Repeater 1 backup generator in place and functional 10% of community team members have signed up for AWS notifications	2014 - 2017	DDM
Liaison Officers established within key departments and agencies to coordinate DRR activities	CDM Regional Outcome 2 Output 2.1 CDM Regional Outcome 3 Output 3.1	Identify Liaison Officers and outline Officers roles and DM responsibilities	2016	DDM
Community Mechanisms established and functioning to respond to hazard impacts		Support communities in developing Community action plan Provide training /support Community Emergency Response Teams	2016-2017	DDM / Red Cross

Barbados

DRR Priority	Link to CDM regional outcome / Sendai priority Action	Recommended Action(s) to Address Priority	Timelines for Priority and Actions	Follow up / Lead organization
Institutional STRENGTHENING	CDM 1 SDRRF Priority 2	Orientation of National Disaster Management Committee Stakeholders to CDM and Sendai Framework and their respective roles, responsibilities and expectations Orientation and Capacity Building of Private Sector Mechanism for Disaster Risk Management	January to September 2017 January 2016 to December 2017	DEM DEM, BCCI
Enhancing SYSTEM MONITORING AND REPORTING	CDM 1 SDRRF Priority 2.	Development, sensitization and dissemination of Monitor and Reporting Template for CDM Reporting Development, sensitization and dissemination of a schedule for reporting Participation in Reporting Fora	December 2016 to April 2017 December 2016 to February 2017 January to December 2017**	DEM, Line Ministries DEM, Line Ministries DEM, Line Ministries, Ministry of Home Affairs
Enhancing COMMUNITY RESILIENCE	CDM 4 SDRRF Priority 2. SDRRF Priority 4.	Strengthening of Community Governance Framework	December 2016 to August 2017	DEM supported by DEOs, Ministries responsible for Community Development

	SDRRF Priority 1.	Improvement of Community-focused Multi-hazard Early Warning System	June 2015 -April 2017	and Youth Affairs. DEM, Telecommunications Unit, MET Office, CZMU, Drainage Unit, DEOs DEM supported by DEOs, Emergency Services DEM supported by DEOs, Ministry of Culture, Sports and Youth Affairs
		Development , refinement and exercising of Community Plans	Ongoing	
		Education of Community Groups	Ongoing	

Cuba

For Priorities from Cuba, please refer to the Disaster Risk Reduction country document⁹.

Dominica

DRR Priority	Link to CDM regional outcome / Sendai priority Action	Recommended Action(s) to Address Priority	Timelines for Priority and Actions	Follow up / Lead organization
Legislation completed, approved and implemented	Priority area 1 of CDM, Priority Area 2 of Sendai	No information provided		
2 Island wide Early Warning System (EWS) for multiple hazard risk, including Seismic Risk	Priority areas 2 and 4 of CDM Priority areas 2 and 4 of Sendai			
Increased Public Awareness and Education related to DRM, especially at the Community level	Priority areas 2, 3 and 4 of CDM Priority 1 Sendai			

Haiti

DRR Priority	Link to CDM regional outcome & Indicator / Sendai priority Action	Recommended Action to address priority	Timeline for priority and action	Follow up / Lead organization
Continue the process of exchanges between stakeholders to promote & ensure the risk governance	SDF: Priorities 2,1,4 CDM: RO1.4. ; RO 3.1 (#16)			Government, DCP, Donors, civil society organizations
Enhance and promote existing tools and good practices for risk prevention and disaster risk reduction and knowledge (through training, information sharing, awareness, mitigation works)	SDF: Priority 1; CDM: RO 2.3, 2.4 (#14, 15)			DCP, partners, stakeholders, communities
Promote the risk financing (PPP, risk transfer, insurance)	SDF: Priorities 3,4			Government, DPC, public sector, civil society,
Strengthen the EWS at all level for all sectors	SDF: 1, 3, 4 CDM: RO 2.3 (#14), RO 4.1, 4.2, 4.3, 4.4			DPC, Government, Donors, Civil society, private sector

⁹ <http://dipecholac.net/docs/files/caribe/documento-de-pais-cuba.pdf>

Grenada

DRR Priority	Link to CDM regional outcome / Sendai priority Action	Recommended Action(s) to Address Priority	Timelines for Priority and Actions	Follow up / Lead organization
1. Reduce Risks to all Hazards	CDM: Outcome 4.3; 2.3 SDF:4 (d)	Public Education and Information, Enhanced Early Warning Systems	2017 – 2019	NaDMA
2. Improve Effective management of Emergency Response	CDM: Outcome 1.4 SDF: 4 (f), (h) and (m).	Develop and review emergency plans Conduct Drills Improve Volunteer Management	2017-2019	NaDMA
3. Enhanced Institutional Capacity	CDM: 1.3,1.4, 2.3, 2.4 SDF: 3 (a)	Equipment upgrade, Training, Enhanced District Committees	2017 - 2018	NaDMA

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Guyana

DRR Priority	Link to CDM regional outcome / Sendai priority Action	Recommended Action(s) to Address Priority	Timelines for Priority and Actions	Follow up / Lead organization
1. Development of a National Disaster Risk Management Bill	CDM: Outcome 1 - 1.2 SDF: Priority 1 (a)	Review, revise, obtain approval and implement the National Disaster Risk Management Bill.		NDO
2. Improve Community Based Disaster Risk Management Plans	CDM: Outcome 3, 3.1; Outcome 2.3 and Outcome 4 (potentially) SDF: Priority 4 a	Complete at least 15 community based Operationalise regional multi-hazard risk reduction plans in ten (10) administrative regions		NDO
3. Improve EWS	CDM:4.3, (2.3, 1.4) cross cutting SDF: Priority 1 (i), 3 (e), 4 (b), (h) and (m).	Expand hydro-meteorological monitoring network Strengthen EWS for flooding, droughts and fires.		NDO

Saint Kitts and Nevis

DRR Priority	Link to CDM Regional Outcome & Indicator/Sendai Priority Action	Recommended Action to Address Priority	Timeline for priority and action	Follow Up Lead Organization
Strengthen early warning system to address multi hazards	Outcome 1: Strengthened institutional arrangements for Comprehensive Disaster Management implementation at national and regional levels. 1.4: Effective and efficient coordination for preparedness, response and recovery at national and regional levels.	Source funding to acquire Radio and TV Override Equipment. Source funding to conduct technical study to design Sirens and also to acquire necessary equipment.	2017 - 2019	National Emergency Management Agency (NEMA)
Enhance Community Volunteer Programme	Outcome 4: Strengthened and sustained capacity for a culture of safety and community resilience in Participating States. 4.2: Community-Based Disaster Management Capacity built/strengthened for vulnerable groups.	Recruit new volunteers island wide. Develop proper structure and procedures. Conduct community meetings and election of Disaster Management Committees.	2017 - 2018	National Emergency Management Agency (NEMA)
Re-establish Urban/Land Search and Rescue Team and Programme	Outcome 1: Strengthened institutional arrangements for Comprehensive Disaster Management implementation	Source funding to conduct training. Source potential trainees from among key	2017 - 2019	St. Kitts-Nevis Fire and Rescue Services

	at national and regional levels. 1.4: Effective and efficient coordination for preparedness, response and recovery at national and regional levels.	First Responder Agencies.		
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Saint Lucia

DRR Priority	Link to CDM regional outcome / Sendai priority Action	Recommended Action(s) to Address Priority	Timelines for Priority and Actions	Follow up / Lead organization
Enhancing Community Resilience	Priority Areas 2 and 4 CDM Sendai Priority Action 1 & 3, 4	CERT in all communities (2017-2020) Emergency Shelters Upgrade – to accommodate persons with disabilities and minimum standards Sustained Community sensitization - DRR	No information provided	
Early Warning System – National and Community EWS	Priority 4 and 2 Sendai Priority Areas 2 and 3 of CDM	No information provided		
Increased Capacity for Risk Assessment	Priority 1 and 3 of Sendai Framework Priority Areas 2 and 3 CDM	Institutional Strengthening – Risk and Vulnerability Assessments		

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Saint Vincent and the Grenadines

DRR Priority	Link to CDM regional outcome / Sendai priority Action	Recommended Action(s) to Address Priority	Timelines for Priority and Actions	Follow up / Lead organization
Strengthening Local Disaster Management (District and Community Disaster Management)	CDM Regional Outcome 4.1, 4.2 Priority 1 - Sendai	Development and strengthening of Community Disaster Groups – Training, Equipment Improved CEWS for all hazards	2017-2019	NEMO, SVG Red Cross, Community Development, Communities
Information, Education and Communication (Knowledge management)	CDM Regional Outcome 2.4 Priority 1 - Sendai	Public Education Plan and Policy using an all hazards approach and involves media Media campaigns for flood, tsunami, earthquakes, landslides, hurricanes	2017-2018	NEMO, Agency for Public Information
Comprehensive Disaster Management Programme (Work Programme)	CDM Regional Outcome 1.2 Priority 2 - Sendai	National Stakeholder Consultations to develop CDM Work Programme Work programme aligned with National Development Plan, CDM Strategy, Sendai Framework	2017	NEMO, Development Planning, Key Sectors, Ministry of National Security

Trinidad and Tobago

DRR Priority	Link to CDM regional outcome / Sendai priority Action	Recommended Action(s) to Address Priority	Timelines for Priority and Actions	Follow up / Lead organization
Completion of DRR platform	CDM 1.1 Sendai 2d)	National Disaster Risk Reduction Committee Platform	1 year	Ministry of National Security/Office of Disaster Preparedness and Management
CDM country work programme	CDM 3.1 Sendai 4b), 4c)	National Disaster Risk Reduction Committee Platform	2 years	Ministry of National Security/Office of Disaster Preparedness and Management
Strengthening Public-Private Partnership in DRM	CDM 3.1 Sendai 2a)	Cabinet Note submitted for Government Approval	3-4 months	Ministry of National Security/Office of Disaster Preparedness and Management
Field Visit for Vulnerable Communities/Groups	CDM 4.2, 4.4 Sendai 4	Cabinet Note submitted for Government Approval to engage PPP in conducting awareness sessions with vulnerable communities.	Embedded Annual Programming	Ministry of National Security/Office of Disaster Preparedness and Management

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Turks and Caicos Islands

Top 3 priority areas: EOC and Warehouse facility, Early Warning Systems & Emergency Radio Communications

DRR Priority	Link to CDM Regional outcome & Indicator / Sendai priority action	Recommended Action to address priority	Timeline for priority and action	Follow up / Lead Organization
Purpose built EOC and warehouse facility on Providenciales and Grand Turk	Outcome 4: Strengthened and sustained capacity for a culture of safety and community resilience in participating states.	<ul style="list-style-type: none"> Develop business case/cabinet paper to seek government funding Seek external funding source 	2018	DDME
Early Warning System	Outcome 4: Strengthened and sustained capacity for a culture of safety and community resilience in participating states.	<ul style="list-style-type: none"> Develop business case/cabinet paper to seek government funding Seek external funding source 	2018	
Installation of Rain Gauges	Outcome 4: Strengthened and sustained capacity for a culture of safety and community resilience in participating states	<ul style="list-style-type: none"> Liaise with partner agencies to assist in installing and programing rain gauges throughout all islands. 	March 2017	DDME
Upgrading of Emergency Shelters	Outcome 4: Strengthened and sustained capacity for a culture of safety and community resilience in participating states.	<ul style="list-style-type: none"> Conduct a more in depth assessment of all shelters to identify works that needs to be done Finalize business case/cabinet paper to seek government funding Seek external funding source 	2017	Public Works Department PWD) / DDME
Improved emergency radio communication	Outcome 4: Strengthened and sustained capacity for a culture of safety and community resilience in participating states.	<ul style="list-style-type: none"> Migrate to the 911 emergency radio communication system Upgrade radio communication from analog to digital Seek funding from TCIG/Donors 	June 2017	
Hazard and evacuation route mapping – analysis and assessment	Outcome 3: Improved effectiveness of CDM at sectoral levels	<ul style="list-style-type: none"> Update GIS baseline and hazard data Conduct all-hazard vulnerability assessments 	June 2017	DDME/Surveys and Mapping Department
Public education Campaigns on DRM	Outcome 2: Increased and sustained knowledge management and learning for CDM	<ul style="list-style-type: none"> Increase production and distribution of educational materials Greater use of social media for mass population outreach Enhance community outreach programme Public Education campaigns in the 3 main languages-English, Creole and Spanish 	ongoing	DDME
Strengthen volunteer corporation	Outcome 2: Increased and sustained knowledge management and learning for CDM	<ul style="list-style-type: none"> Increased training opportunities. Increase involvement in DM initiatives at community/local level 	ongoing	DDME

Virgin Islands

DRR Priority	Link to CDM regional outcome & Indicator / Sendai priority Action	Recommended Action to address priority	Timeline for priority and action	Follow up / Lead organization
Capacity Strengthening for Urban Search and Rescue	CDM – PA1/RO1.4 Sendai – Priority 4	Development of a national Search and Rescue Programme inclusive of legislation, policy, plans, operating procedures, team enhancement and training and resource acquisition	January 2017 – December 2018	Lead: Department of Disaster Management Support: Virgin Islands Search and Rescue Territorial Search and Rescue Team BVI Red Cross
Enhancement of Early Warning System	CDM – PA4/RO4.3 Sendai – Priority 4	Transition of the existing Early Warning System as well as the Emergency Alert and Broadcast System to compliant with the Common Alerting Protocols	January 2017 – December 2018	Lead: Department of Disaster Management Support: Ministry of Communications and Works
Expansion of the Hazard Mapping Datasets	CDM – PA1/RO3.2 Sendai – Priority 1	Develop inland flooding maps, soil maps as well as the acquisition of quantitative risk data Conduct of human vulnerability assessment	January 2017 – December 2018	Lead: Town and Planning Department Support: Department of Disaster Management Lands and Survey Department Ministry of Natural Resources and Labour

Annex 2: Regional Outcome Indicators of the CDM Strategy 2014-2024

**PRIORITY AREA 1 (PA 1):
Strengthened institutional
arrangements for CDM**



**PRIORITY AREA 2 (PA 2):
Increased and sustained knowledge
management and learning for CDM**



RO	DESCRIPTION	TARGET 2024
RO 1.1:	National Disaster Organisations and CDEMA CU strengthened for effective support of the implementation, monitoring and evaluation of CDM in Participating States	
	3. Number of CDEMA system stakeholders (NDOs and CDEMA CU) utilising PMF and MER processes to inform Annual Progress Reports on CDM implementation (OUTCOME)	19
	4. Number of CDEMA System stakeholders (CDEMA Participating Countries and CU CDEMA) with a Governance Mechanism functioning (OUTCOME)	19
RO 1.2:	CDM is integrated into policies, strategies and legislation by Participating States	
	5. Number of CDEMA PS countries with a CDM legislation approved (OUTCOME)	18
RO 1.3:	Development Partners' programming aligned to CDM programming and priorities	
	6. Number of partners that have programmes aligned to support CDM implementation (OUTCOME)	20
RO 1.4:	Strengthened coordination for preparedness, response and recovery at the national and regional levels	
	7. Number CDEMA system stakeholders (CDEMA CU and Participating States) conducting simulation exercises testing multi-hazards (OUTCOME)	19
	8. Number of CDEMA system stakeholders (NDOs, CDEMA CU, CIMH, RSS, SRC) with an effective emergency communications system supporting response and recovery (OUTCOME)	22
RO 1.5:	CDM Programming is adequately resourced	
	9. Percentage of national budget supporting NDO operations (OUTCOME)	2
	10. Percentage of Development Partners contribution to CDM implementation (OUTCOME)	TBD

RO	DESCRIPTION	TARGET 2024
RO 2.1:	Regional Disaster Risk Management Network for informed decision-making at all levels improved	
	11. Number of accredited Centres of Excellence (CoE) operating (OUTCOME)	6
	12. Percentage of managers and technical professional from state institutions certified by a CoE (OUTCOME)	75
RO 2.2:	Integrated Systems for fact-based policy and decision making established	
	13. Number of stakeholders (Participating States and CDEMA CU) utilising CRIS for DRM decision making (OUTCOME)	11
RO 2.3:	Incorporation of community and sectoral based knowledge into risk assessment improved	
	14. Percentage of communities with hazard and vulnerability assessments that have been completed in consultation with community and sector partners (OUTCOME)	75
RO 2.4:	Educational and training materials for CDM standardised, improved and applied in the region	
	15. Percentage of beneficiaries satisfied with training provided by trainers using standardised materials (OUTCOME)	75

**PRIORITY AREA 3 (PA 3):
Improved integration of CDM
at sectoral levels**



**PRIORITY AREA 4 (PA 4):
Strengthened and sustained
community resilience**



	TARGET 2024
<p>▶ RO 3.1: Strategic Disaster Risk Management programming for priority sectors improved</p> <p>16. Number of Participating States with sector specific DRM plans that have been implemented (OUTCOME)</p>	18
<p>RO 3.2: Hazard information integrated into development planning and work programming for priority sectors</p> <p>▶ 17. Number of Participating States that have integrated normative requirements for risk mitigation (OUTCOME)</p>	18
<p>RO 3.3: Incentive programmes developed and applied for the promotion of risk reduction/ CCA in infrastructure investment in priority sectors</p> <p>18. Number of Participating States applying incentive programmes for Disaster Risk Reduction and Climate Change Adaptation (OUTCOME)</p>	18

	TARGET 2024
<p>▶ RO 4.1: Standards for safe communities developed, agreed and applied</p> <p>19. Percentage of vulnerable communities in Participating States that have a functioning community resilience mechanism in place (OUTCOME)</p> <p>20. Percentage of vulnerable communities in Participating States with a standard community disaster programme in place (OUTCOME)</p>	75
<p>▶ RO 4.2: Community-Based Disaster Management capacity built/strengthened for vulnerable groups</p> <p>21. Percentage of vulnerable communities with a standard multi-hazard community disaster plan which addresses vulnerable groups (OUTCOME)</p>	75
<p>▶ RO 4.3: Community Early Warning Systems, integrated, improved and expanded</p> <p>22. Number of Participating States that completed a multi hazard communication strategy at community level (OUTCOME)</p> <p>23. Number of Participating States having appropriate multi-hazard EWS (OUTCOME)</p>	18 9
<p>▶ RO 4.4: Community livelihoods safeguarded and strengthened through effective risk management</p> <p>24. Percentage change in the average value (USD) of insurance for communities (OUTCOME)</p>	Pending

Annex 3: Common indicators between the CDM Audit tool and the Sendai monitor¹⁰

MITIGATION; COMPONENT: Risk Identification; Key Element: Hazard Assessment

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
M4.4. Relevant information on disasters is available and accessible at all levels (regional, national and local), to all stakeholders (through networks, development of information sharing systems, websites etc)	G-5 Number / percentage of countries that have [multi-hazard national risk assessment /risk information with results in an accessible, [understandable and usable] format for stakeholders and people.	
M5.1. # of countries whose data management analysis and information dissemination software have GIS capability for mapping and modelling		A15: Open data platform
M5.7. Evidence that the products of hazard mapping exercises are centrally stored and accessible to all stakeholders		A8: multi- hazard risk profile A11: Risk and hazard maps
M5.8. Existence of methodologies or tools for multi-risk assessments and cost benefit analysis		A13: Cost-benefit analysis:

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MITIGATION; COMPONENT: Risk Identification; Key Element: Vulnerability Assessment

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
M8.3. # of countries that base their national development planning on completed HVAs (including identified and evaluated activities likely to increase disaster risks in communities) and CDM/DM/RM plans	E-11 - Number of countries that mainstream DRR into national development planning	B4: Disaster risk reduction and economic development planning
M9.2. # of countries that conducted studies on potential economic losses to the national economy due to events caused by natural hazards (including losses to the Tourism, agricultural and financial sectors)		A7: Risk assessments
M10.1. # of countries which mandated EIAs that incorporate HVAs and impact of disaster risk to be included in land use planning		E72 (C66): Environment Impact Assessment (EIA): Is disaster risk issue integrated into environment impact assessment?
M10.2. Evidence that disaster risk reduction is an integral objective of environment related policies and plans (including land use plans and building codes), natural resource and human settlements management		E26 (C6): Drainage infrastructure E27 (C7): Water management E37 (C54): Land-use regulation policy and planning (including urban planning) E39 (C55): Building codes E41 (C56): Building permits E67 (C65): Ecosystem planning E68 (C27): Sustainable forest management planning E69 (C28): Sustainable coastal area management planning 70 (C29): Environmental restoration/conservation/enhancement

¹⁰ For partners interested in participating to the ECHO HIP 2017, it is recommended that some of these indicators are integrated in proposals, when feasible. Please explicitly refer to them in your proposals.

		71 (C64): Ecosystem protection area
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MITIGATION; COMPONENT: Risk Identification; **Key Element:** Risk Assessment

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
M11.6. # and % of communities that have conducted HVA (including Red Cross HVA)		A10: Local level risk assessments

MITIGATION; COMPONENT: Non-structural Mitigation; **Key Element:** Land use planning

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
M12.2. # of countries with nationally mandated land use planning influenced by the CDM/DM/RM plans	E-10 – Number of countries that have spatial and land use planning mechanisms for DRR.	E37 (C54): Land-use regulation policy and planning (including urban planning)
M12.3. # of countries where land use planning is done at the national level and at the municipal level (as relevant ¹¹ .)		E37 (C54): Land-use regulation policy and planning (including urban planning)

MITIGATION; COMPONENT: Non-structural Mitigation; **Key Element:** Building codes

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
M15.1. # of countries with updated building codes based on the RBS		E39 (C55): Building codes: <i>Does the country have building codes that consider disaster risks?</i>
M21.3. # of countries that have incentive programmes to promote mitigation by the key sectors and for the general population (for individuals and businesses).		E21 (D35): Incentives for risk sensitive recovery and reconstruction E38 (C16): Facilitating relocation E40 (C17): Facilitating housings/buildings retrofitting E43 (C59): Work place resilience E70 (C29): Environmental restoration/conservation/enhancement E76 (C33): Productive asset protection E93 (C39): Cultural heritage protection

MITIGATION; COMPONENT: Structural Mitigation; **Key Element:** Old facilities

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
M24.1. Existence of a policy/programme/or planning process to make older CI facilities more resilient (by country and sector)	E-4 – Number of countries that adopt and implement critical infrastructure protection plan	E22 (C3): Critical infrastructure protection (plan or strategy)

MITIGATION; COMPONENT: Risk Transfer; **Key Element:** Financial Measures

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
M26.1. Evidence of a <u>region wide</u> mechanism for insuring public sector structures	C-10 – Financial transfer and access to insurance	B18: Regional Cooperation (including for risk pooling or insurance) E52 (C23): Risk transfer (via intergovernmental risk pools, insurance, reinsurance or catastrophe bonds)

¹¹ This hence refers to the lowest level of government in the country.

M26.2. Existence of catastrophe bonds and or pools for risk transfer	C-10 – Financial transfer and access to insurance	E54 (C25): Catastrophe insurance E55 (C26): Micro-finance E52 (C23): Risk transfer
M26.3. # of countries that self-insure their public sector structures		E29 (C9): Insurance for infrastructure
M26.4. # of countries that insure their public sector structures through private policies.	C-10 – Financial transfer and access to insurance	E29 (C9): Insurance for infrastructure
M27.2. # of countries where crop insurance is available for farmers.		E54 (C25): Catastrophe insurance

PREPAREDNESS COMPONENT: Governance; Key Element: Legislative framework

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P1.1. # of countries with drafted/enacted disaster legislation which supports CDM (including mitigation) policies, plans and programmes		B1: DRR legislation
P1.3. National policy and legal framework for CDM (including HVA) exists inclusive of (decentralised) responsibilities and capacities at all levels		B1: DRR legislation
P1.4. # countries with disaster legislation that provides for succession of key government officials		
P1.5. # of countries with an oversight mechanism for CDM with <u>membership at ministerial level</u>		B8: Parliamentarians

PREPAREDNESS COMPONENT: Governance; Key Element: Legislative framework

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P1.1. # of countries with drafted/enacted disaster legislation which supports CDM (including mitigation) policies, plans and programmes		B1: DRR legislation
P1.2. Evidence that the National CDM Legislation is adapted to the CDEMA CDM Model Legislation		
P1.3. National policy and legal framework for CDM (including HVA) exists inclusive of (decentralised) responsibilities and capacities at all levels		B1: DRR legislation
P1.4. # countries with disaster legislation that provides for succession of key government officials		
P1.5. # of countries with an oversight mechanism for CDM with <u>membership at ministerial level</u>		B8: Parliamentarians
P1.9. # of countries with legislation that supports and defines the declaration of a State of Emergency		E16 (D11): A state of emergency

PREPAREDNESS COMPONENT: Governance; Key Element: Policy framework

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P6.3. Existence of key sector DMC Committees (DMC sub-committee for the HS) with clearly defined responsibilities	E-5 - Number of countries with cross-sectoral bodies/forums, with clear roles and responsibilities identified across state institutions, civil society, private sector and international actors, in the implementation and review of DRR measures	B7: Multi stakeholder coordination

PREPAREDNESS COMPONENT: Governance; Key Element: Strategic framework

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P8.1. # of countries where national (sustainable) development plans/strategies incorporate CDM, climate change and poverty reduction issues	E-3 – Number of countries that [integrate / integrated] [climate and disaster risk / climate change / adaptation] into [development planning / development plan]. E-11 - Number of countries that mainstream DRR into national development planning	B4: Disaster risk reduction and economic development planning
P8.3. Evidence that National CDM strategy, CWP and/or programme are based on hazard mapping, and vulnerability and risk assessments	E-1 - Number of countries that adopt and implement national DRR strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030. <u>Note: the DRR strategies need to be based on risk information and assessments.</u>	B2: National DRR strategy and plan
P8.4. Evidence that National CDM strategy, CWP and/or programme are community specific and multi-hazard in context		B2: National DRR strategy and plan
P8.7. # of countries using an M,E&R process for CDM implementation (including a PMF).	E-7 - Number of countries and local governments conducting (independent) periodic outcome reviews of the implementation of national and local DRR strategies F-12 - Number of countries having participated in a voluntary and mutual review of progress in implementing respective national DRR strategies]	B13: National reviews B14: Local reviews

PREPAREDNESS COMPONENT: Governance; Key Element: Planning framework

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P10.8. Evidence that disaster preparedness /contingency plans are in place at <u>all administrative levels</u> National (ministries and Departments) Municipal (as relevant ¹²)		E5 (D1): National contingency plans E6 (D2): Contingency plans at local level E7 (D3): Contingency plans at sector
P11.7. # of countries where community participation and decentralization are ensured		E2 (C2): Local financial capacities

¹² This hence refers to the lowest level of government in the country.

through the delegation of authority and resources to local (municipal, as relevant ¹³) levels		
P15.1. # of countries with Disaster Management Mutual Aid MOUs with adjacent countries and all countries in the same Sub-Region.	F-11 alt. Number of countries that have regional cooperation to support DRR	B19: Trans-boundary Cooperation <i>Does the county participate in formal cooperation arrangements and protocols with neighbouring countries to address trans-boundary risks?</i>
P15.2. % of Communities (or municipal, as relevant ¹⁴) with Disaster Management Mutual Aid MOUs with adjacent Communities.		E15 (D10): Horizontal cooperation: Does the country have a legal or formal mechanism in place that facilitates local governments to draw on the capacities and resources of other local governments during emergencies?

PREPAREDNESS COMPONENT: Education & Information; Key Element: Education

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P16.3. # of countries that include CDM related issues and materials in school curricula at the primary and secondary level.		A20: Mandatory Education
P17.2. #/types of formal CDM programmes offered in the region		A21: Professional Education

PREPAREDNESS COMPONENT: Education & Information; Key Element: Public Awareness

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P19.1. # of countries with a countrywide public awareness strategy including outreach to urban and rural communities.		A22: Awareness raising
P19.6. # and type of mass media means utilized for public awareness programming		A22: Awareness raising
P19.9. Evidence that gender issues are factored into the public awareness programme		A22: Awareness raising
P19.15. Evidence that gender and vulnerable groups are adequately addressed in public information materials		A22: Awareness raising

PREPAREDNESS COMPONENT: Training & exercises; Key Element: Formal and informal training CDM Training Courses

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P23.3. # of countries with a CDM training Strategy/programme		A23: Capacity building for government official
P24.1. # of countries where the NDO has a programme to train key sectors including the private sector involved with CDM.		A24: Capacity building for civil and private sector
P24.2. # of countries where NDO has a programme to provide training to NGO, CBO and FBO staff as well as community members		A24: Capacity building for civil and private sector

¹³ This hence refers to the lowest level of government in the country.

¹⁴ This hence refers to the lowest level of government in the country.

involved in CDM.		
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PREPAREDNESS; COMPONENT: Training & exercises; Key Element: Exercises

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P30.2. % of key sector facilities (schools, hospitals, mid and large hotels, etc.) that exercised their emergency/disaster plan in the last year.		E85 (D25): School preparedness E90 (D29): Health facility preparedness

PREPAREDNESS; COMPONENT: Warning and Alerts; Key Element: Detection

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P31.6. # of countries whose EWS have a forecasting capability or access to a regional forecasting capability related to hydrometeorological hazards in particular tropical storms and hurricanes	G-2 – Number of countries that have [coordinated] multi-hazard monitoring and forecasting system	A6: Hazard monitoring
P31.7. # of countries whose EWS have a national warning system for events caused by hydrometeorological hazards in particular tropical storms and hurricanes	G-1 - Number of countries that have [coordinated] multi-hazard early warning system.	E18 (D13): Early warning

PREPAREDNESS; COMPONENT: Warning and Alerts; Key Element: EWS

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P32.1. % of population covered by the alert/warning systems (by system)	G-3 – [Number / percentage] of people who are covered by [and have access to] multi-hazard early warning system [per 100,000]	

PREPAREDNESS; COMPONENT: Finance and Administration; Key Element: Resource Management

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P35.1. Dedicated and adequate resources are available to implement CDM plans (and/or CWP) and activities at <u>all administrative levels</u>	E-9 – Number of countries that have national financing mechanisms for DRR	
P35.3. % of annual operating budget allocated to hazard proofing sectoral development investments (e.g Transport, agriculture, infrastructure) and to stand alone DRR investments (e.g. DRR institutions, risk assessments, early warning systems, ...)	E-6 - Number of countries accounting for future risk in public and private balance sheets, setting financial targets to inform investment strategies for reducing risk and enhancing future prosperity	
P35.6. Total value of countries’ investment in CDM in the previous fiscal year and % <u>breakdown in terms of nationally provided funding and donor/partner provided funding.</u>		E1 (C1): Budget
P35.6. Total value of countries’ investment in CDM in the previous fiscal year and % <u>breakdown in terms of nationally provided funding and donor/partner provided funding.</u>		E1 (C1): Budget

PREPAREDNESS; COMPONENT: Finance and Administration; **Key Element:** Programme Management

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P38.5. # of donor/partner CDM projects by donor/partner	F-11 - Number of international and regional <u>multi-stakeholder partnerships</u> established to build [individual, institutional and societal capacity for disaster risk reduction / DRR] capacity in developing countries <u>and the economic value of such partnerships</u>	

PREPAREDNESS; COMPONENT: Community resilience; **Key Element:** Concept of Community Resilience

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
P44.1. # of countries where communities have a well-defined comprehensive community resilience programme.		B10: Local DRR strategy and plan

RESPONSE; COMPONENT: Activation; **Key Element:** Mobilization

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
R1.2. # of countries with a dedicated resilient NEOC and a 'convertible' 'alternate' NEOC		E11 (D6): Emergency operations centre (information management)
R1.13. # of countries with Continuity of Government Plans (Ministry BCP) for major events		E14 (D9): Government Business Continuity planning

RESPONSE; COMPONENT: Activation; **Key Element:** Damage Assessment

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
R4.1. # of countries with a system, methodology and trained human resources able to provide initial damage assessment (with gender sensitivities) to enable early decision making by the NEOC		A1: Loss Assessment

RESPONSE; COMPONENT: Activation; **Key Element:** Operational Information Management

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
R6.1. Evidence that <u>procedures</u> are in place to exchange relevant information during hazard events and disasters, and <u>to undertake post-event reviews</u>		A4: Post-disaster review <i>Does the country have a policy or strategy to carry out post-disaster evaluations using an agreed methodology/ guideline to review disaster causality, occurrence and response/recovery based on evidence</i>

RESPONSE; COMPONENT: Resources; **Key Element:** Life support-

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
R27.9. # of countries with established emergency protocols with food wholesalers.		E74 (C31): Food security

RESPONSE; COMPONENT: Resources; **Key Element:** Finance

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
R30.2. # of countries with a mechanism and protocols to receive and manage foreign donor financial and in-kind contributions for emergency response operations.		E95 (D33): International cooperation: <i>Does the country have formal procedure to receive and coordinate bilateral and multilateral donor aid, through grants and loans, in case of disaster?</i>

RESPONSE; COMPONENT: De-activation; **Key Element:** After action analysis

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
R37.5. # of countries that conduct post event analysis of response operations.		A4: Post-disaster review

RECOVERY; COMPONENT: Reconstruction and repair of damaged infrastructure; **Key Element:** Priority setting for reconstruction

CDM Audit tool indicator	Sendai Framework Global Targets and Indicators	Sendai Monitor Indicators
R40.1. Existence of a reconstruction policy (or plan)		E19 (D33): Recovery and reconstruction policy