

# **Strengthen integrated early warning systems for more effective disaster risk reduction in the Caribbean through knowledge and tool transfer**

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Final Report  
Prepared by Nana Gibradze  
April 2019



Empowered lives.  
Resilient nations.



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European Union  
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The final evaluation of the project “Strengthen integrated early warning systems for more effective disaster risk reduction in the Caribbean through knowledge and tool transfer” was carried out between December 2018 - 30 April 2019 by independent consultant Nana Gibradze. The Evaluation was commissioned by the UNDP Regional Hub for Latin America and the Caribbean in Panama City, Panama

The Evaluation was conducted in Panama City, Panama; Bridgetown, Barbados; Kingstown, Saint Vincent and the Grenadines, and Castries, Saint Lucia.

The Evaluator would like to express gratitude to all interviewed persons for their time and consideration, also for their qualified and honest opinions. The Evaluator is particularly grateful to the UNDP Country Office in Barbados, representatives of CDEMA and IFRC and national Disaster Management offices in Saint Vincent and the Grenadines and Saint Lucia, for their support to the consultancy, organization of field visits, interviews and surveys, their valuable inputs and their warm hospitality. The evaluation is also grateful to UNDP Country offices in Cuba and Dominican Republics for mobilizing national stakeholders and facilitating their participation in interviews and surveys.

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Except for the opinions of the respondents consolidated in Chapter 6. *Evaluation Findings*, all opinions expressed in this report are those of the Evaluator and do not represent the official views of UNDP, ECHO, CDEMA, IFRC or any stakeholder involved in the project.

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## Acronyms

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AMA	Agencia de Medio Ambiente (Environment Agency)
CDEMA	Caribbean Disaster Emergency Management Agency
COE	Centro de Operaciones de Emergencias (Emergency Operations Center)
CREWS	Climate Risk & Early Warning Systems
DAC	Development Assistance Committee
DIPECHO	General Directorate of Civil Protection and Humanitarian Aid of the European Union
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DSS	Department for Safety and Security
EWS	Early Warning Systems
IFRC	International Federation of the Red Cross and Red Crescent Societies
INDRHI	Instituto Nacional de Recursos Hidráulicos (National Institute of Water Resources - Dominican Republic)
INRH	Instituto Nacional de Recursos Hidráulicos (National Institute of Water Resources - Cuba)
INSMET	Instituto de Meteorología (Meteorological Institute)
LAC	Latin America and the Caribbean
NEMO	National Emergency Management Organization
NODS	National Office of Disaster Services
OECD	Organization for Economic Cooperation and Development
ONAMET	Oficina Nacional de Meteorología (National Meteorology Office)
RHLAC	Regional Hub for Latin America and the Caribbean
SDR	Sustainable Development and Resilience
SSC	South-South Cooperation
UN	United Nations
UNDP	United Nations Development Programme
UNEG	United Nations Evaluation Group
UNICEF	United Nations International Children's Emergency Fund
WMO	World Meteorological Organization

## 1. Executive Summary

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The project “Strengthen integrated early warning systems for more effective disaster risk reduction in the Caribbean through knowledge and tool transfer” was implemented by the UNDP in collaboration and/or coordination with the International Federation of the Red Cross and Red Crescent Societies (IFRC), the Caribbean Disaster Emergency Management Agency (CDEMA), OXFAM and other partners of the General Directorate of Civil Protection and Humanitarian Aid of the European Union (DIPECHO), and national counterparts. It was implemented from May 2017 to March 2019 as approved through the final modification request due to unforeseen delays.

The project focused on 6 countries in the Caribbean (Antigua and Barbuda, Cuba, Dominica, Dominican Republic, Saint Lucia, and Saint Vincent and the Grenadines) to improve the EWS effectiveness, with a specific component in Haiti. The project addressed priority gaps in the four pillars of EWS at a national level, contributing to the integration of national and community EWS and addressing sustainability and national ownership of EWS through 4 expected results:

- R1: Increase access to existing tools and knowledge of EWS at a national and regional level:
  - Expansion of EWS online existing toolkit;
  - Supporting the integration of DRR in Haiti;
  - Improvement of community-based EWS Toolkit;
  - Dissemination and making tools available in the principal languages of the Caribbean.
- R2: Provide integrated EWS solutions and actions in five target countries through knowledge sharing:
  - Developing a EWS checklist;
  - Consolidating best practice tools in EWS based on the Cuban model
  - Targeted support to Antigua and Barbuda, Dominica, Dominican Republic, Saint Lucia and Saint Vincent and the Grenadines to address EWS gaps;
- R3: Increase EWS effectiveness in five target countries through concrete priority actions:
  - Implement priority actions in Antigua and Barbuda, Dominica, Dominican Republic, Saint Lucia, Saint Vincent and the Grenadines
- R4: Ensure EWS knowledge transfer, documentation and communication:
  - Project planning;
  - Provision of technical assistance and support to horizontal transfer of tools and knowledge on EWS;
  - Measure tool use;
  - Joint communication strategy; products and visibility with Oxfam, IFRC and CDEMA;
  - Handover process of DIPECHO tools.

The project targeted a wide set of direct and indirect beneficiaries including National Disaster Risk Management (DRM) institutions, public and private institutions, EWS staff, National Red Cross Societies, and selected communities involved in the project, Cuban institutions at national and provincial levels, Country Focal points for UNDP DRR Projects, and staff of various national institutions participating in the project activities. Altogether, the project benefited 153

organizations with 24,834 individuals: 153 national institutions in Cuba (24), Saint Vincent and Grenadines (13), Dominica (21), Dominican Republic (29), Antigua and Barbuda (27) and Saint Lucia (42) and 15 regional bodies.

The project was implemented by UNDP through agreements with participating Country Offices and Letters of Agreement with CDEMA and IFRC, which outlined roles, responsibilities, activities and budgets. Each implementing partner collaborated with national disaster management authorities: National Office of Disaster Services (NODS) in Antigua and Barbuda, Office of Disaster Management (ODM) in Dominica, Center for Emergency Operations (COE in Spanish) in the Dominican Republic, and the National Emergency Management Organizations (NEMO) in both St. Lucia and Saint Vincent and the Grenadines. The project had an MOU with Oxfam in the Dominican Republic and a collaborative arrangement with CREWS (partnership project between WMO, WB and UNISDR).

The project was funded by the General Directorate of Civil Protection and Humanitarian Aid of the European Union (DIPECHO). The total budget of the project was EURO 1,372,315, of which EURO 1,150,000 was provided by the donor and EURO 222, 315 was co-financing by the international organization/ECHO partner in the form of direct project costs.

The evaluation concludes that the project was a relevant and needed endeavor both at national and regional levels; the logic of intervention was innovative and adequate; partnerships and alliances established within the project effective and strategic; South-South Cooperation mechanisms and tools relevant. However, for more relevance, future interventions need to better reflect the geography, hazard and risk profile, and horizontal transfer tools be better adapted to national settings and institutional capacities.

The project has been effective in achieving almost all planned results in accordance with the established indicators. The progress towards the results has not been steady due to numerous obstacles, however, these were addressed and overcome in an effective and timely manner, without incurring changes to the overall project objectives and strategy.

Given the significant challenges and limitations, the project has been highly efficient, achieving the results within the initial cost estimates and completing all actions within the allocated time extension. With the exception of some operational obstacles related to procurement and payments, most delays in the implementation were of exogenous nature and beyond the control of the project.

The project has attained a moderate-to-high degree of sustainability and faces challenges related to national ownership that need to be addressed in the second phase. The sustainability of the project was diminished by its scope, as it only managed to address a limited number of gaps and needs and had a limited timeframe to solidify the gains and secure stronger political commitments.

Considering the fact that the second phase of the project has already been approved, it is not clear to what extent the following recommendations to improve the relevance, effectiveness, efficiency and sustainability can be implemented:

### *Relevance*

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- Collect data on social and economic vulnerabilities and inequalities of each target territory to have a clearer understanding of how these affect their vulnerability to disasters and incorporate it in the design of specific solutions.
- Include the aspect of scenario modeling to address future hazards associated with climate change such as sea-level elevation in coastal communities, increased intensity of hurricanes and such, using the Cuban experience and know-how;

### *Effectiveness and efficiency*

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- Instead of shared responsibility for results, assign a specific result to each implementing agency with a designated budget to improve implementation, monitoring and accountability;
- Maintain the coordination structure and frequency to ensure proper monitoring and follow-up and organize a meeting of project managers early in the second phase to review the lessons learned during the first phase and discuss the ways to address them;
- Establish coordination channels for technical experts involved in horizontal transfer to exchange lessons and tips on the implementation, challenges and mitigation measures;
- Budget additional personnel to support the institutions and implementing partners with the most stretched human resource capacity throughout the implementation.
- Establish a proper coordination mechanism between the operations/administrative officers of implementing agencies to harmonize required procedures and formats to the extent possible and calculate the required time for processing requests.
- Improve the communication between the participating institutions, ensure proper and timely planning of the training events, including travel and payment of allowances, exchange and validation of training materials, providing proper translation and consolidating the agenda.
- Appoint designated Monitoring and Communication specialists, cost-shared by all implementing agencies to ensure proper monitoring of the project implementation and implement the communication strategy;
- Establish a common calendar for sharing not only project-related activities but important events and travels of key stakeholders, important regional events and holidays to facilitate the planning of project-related activities and communication;
- Engage key stakeholders in the design/updating of the communication strategy early on to better tailor the messages to different audiences and support implementation;
- Identify possible influencers and leaders at the community level, such as churches, youth organizations, community leaders, local radios and businesses to identify and support volunteers and establish communication channels;
- assess the feasibility of transferring the entire model on a case-by-case basis and define the exact scope of the transfer breaking it down into phases and adapting it to the existing circumstances, availability of data, human resources and the like.
- Adapt the toolkit and simplify the checklist and the community questionnaire for its use in different settings, especially when working with the communities.
- Have certified translators and interpreters on board to address the language barrier and improve the quality of materials used for trainings and experience transfer;
- Allocate more time for trainings in countries, to make them less intense and more productive, and focus on specific achievable outputs.

- Define properly the scope and targets of each national stakeholder institution and share it with both receiving and offering countries to better tailor the intervention to the specific needs of the institution and avoid communication gaps during the experience transfer.
- Increase the time spent by the experts in each country and the frequency of missions to allow for identification and addressing of bottlenecks and needs, improving data collection and effectiveness of trainings and experience transfer.

### *Sustainability*

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- Combine a robust advocacy component with technical assistance to support national institutions in prioritizing early warning systems in their respective legislations and budgets, ensure close follow-up on the implementation of the signed agreements and support for the signature of the pending ones.
- Facilitate bilateral coordination channels and agreements between the offering and recipient countries identifying focal points in participating institutions to further ensure continuity and sustainability of the results;
- Identify and empower institutional Focal Points in the participating institutions to act as the champions vis-à-vis the relevant national institutions, donors and communities;

### *Gender and vulnerability*

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- Strengthen the awareness on the gender dimension of disaster risk at all levels and among stakeholder institutions and implementing partners, to improve gender mainstreaming within the project;
- Strengthen the commitment of the implementing partners to foster inclusion and gender equality by advocating for a higher and targeted financial and human resources allocation to gender-specific actions and gender mainstreaming to guarantee the effectiveness of the proposed actions;
- Include the Gender Team in project implementation and coordination to help with gender mainstreaming within the project, improvement of gender-related indicators, support data disaggregation and analysis.
- Follow-up on the commitments of the first phase and identify, train and empower gender focal points in participating institutions to monitor data collection and implementation of gender-specific actions of the project;
- Enforce rigorous data collection and disaggregation by gender, age, disability and other relevant criteria and its regular inclusion in reporting documents both internally, by the implementing partners, as well as by the national institutions.
- Design short presentations on gender and disaster risk reduction for participating institutions and communities using the existing methodologies and knowledge, such as America Latina Genera.
- Enhance the community strategy with specific gender and DRR messages and identify target communities and media channels for their dissemination.

## **2. Introduction**

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The project “Strengthen integrated early warning systems for more effective disaster risk reduction in the Caribbean through knowledge and tool transfer” (hereinafter referred to as the project), has been implemented by the UNDP in collaboration and/or coordination with the International Federation of the Red Cross and Red Crescent Societies (IFRC), the Caribbean Disaster Emergency Management Agency (CDEMA), OXFAM and other partners of the General Directorate of Civil Protection and Humanitarian Aid of the European Union (DIPECHO), and national counterparts.

The purpose of this document is to present the consolidated findings, conclusions and recommendations related to the implementation of the project in six countries of the Caribbean, obtained during the evaluation.

## 2.1. Structure of the report

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The report contains nine chapters:

Chapter 1 contains a 4-page executive summary of the evaluation report;

Chapter 2 presents the introduction, the structure of the document and a brief project background;

Chapter 3 offers the description of the evaluation, its purpose and objectives, its object, scope and use;

Chapter 4 contains the methodology applied during the evaluation and the data analysis carried out by the evaluator, as well as the evaluation limitations;

Chapter 5 contains the evaluation work plan;

Chapter 6 contains the main findings of the evaluation obtained from the review of documentation, interviews and surveys and triangulation of data;

Chapter 7 contains the conclusions of the evaluator based on data analysis and triangulation.

Chapter 8 contains the recommendations of the evaluator based on the analysis of the findings and triangulation.

Chapter 9 lists the key lessons reported by UNDP, CDEMA and IFRC and respondents, as well as proper lessons learned by the evaluator during the analysis of findings.

The Report has 7 Annexes.

## 2.2. Project description

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The project “Strengthen integrated early warning systems for more effective disaster risk reduction in the Caribbean through knowledge and tool transfer” aims to improve Early Warning Systems (EWS) for more effective Disaster Risk Reduction (DRR) in the Caribbean, and to move toward the implementation of more integrated early warning systems, through concrete actions addressing existing gaps.

The overall objective of the project is “to strengthen integrated early warning systems for more effective disaster risk reduction in the Caribbean”, contributing to UNDP’s Strategic Plan 2014-2017, Outcome 5 “Countries are able to reduce the likelihood of conflict and lower the risk of natural disasters, including from climate change”, especially to Output 5.4. “Preparedness systems in place to effectively address the consequences of and response to natural hazards (e.g.

geophysical and climate-related) and man-made crisis at all levels of government and community”<sup>1</sup>.

The project primarily focuses on 6 countries in the Caribbean (Antigua and Barbuda, Cuba, Dominica, Dominican Republic, Saint Lucia, and Saint Vincent and the Grenadines), implementing one specific and minor component in Haiti. These countries are among the most affected by climate change<sup>2</sup> and in need of strengthening their early warning and preparedness capacities. In these countries, the project builds on the advances obtained through earlier interventions, including DIPECHO initiatives and work towards improving the EWS effectiveness by addressing the (i) lack of integrated EWS; (ii) strengthening weak EWS communication; (iii) improving access to tools and knowledge to support EWS; (iv) improving EWS coordination at national and regional levels; (v) expanding and integrating community EWS into national EWS; (vi) ensuring the quality of EWS; (vii) sharing good practices and models; (viii) advocating for integrating community EWS into national systems; and (ix) ensuring the sustainability of strengthened national EWSs.

In this regard, the project seeks to emphasize the four pillars of EWS and close priority gaps at a national level, contributing to the integration of national and community EWS and addressing sustainability and national ownership of EWS through four expected results and respective activities:

- R1: Increase access to existing tools and knowledge of EWS at a national and regional level:
  - Expansion of EWS online existing toolkit;
  - Supporting the integration of DRR in Haiti;
  - Improvement of community-based EWS Toolkit;
  - Dissemination and making tools available in the principal languages of the Caribbean.
- R2: Provide integrated EWS solutions and actions in five target countries through knowledge sharing:
  - Developing an EWS checklist;
  - Consolidating best practice tools in EWS based on the Cuban model
  - Targeted support to Antigua and Barbuda, Dominica, Dominican Republic, Saint Lucia and Saint Vincent and the Grenadines to address EWS gaps;
- R3: Increase EWS effectiveness in five target countries through concrete priority actions:
  - Implement priority actions in Antigua and Barbuda, Dominica, Dominican Republic, Saint Lucia, Saint Vincent and the Grenadines
- R4: Ensure EWS knowledge transfer, documentation and communication:
  - Project planning;
  - Provision of technical assistance and support to horizontal transfer of tools and knowledge on EWS;
  - Measure tool use;

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<sup>1</sup> Outcome 4 of the LAC Regional Programme document.

<sup>2</sup> Global Climate Risk Index 2016, Index for Risk Management 2016, Climate Change Vulnerability Index 2014, Human Development Report Environmental Sustainability Table 2015, World Risk Index 2015 and ND-GAIN Country Index 2014 (University of Notre Dame).



- Joint communication strategy; products and visibility with Oxfam, IFRC and CDEMA
- Handover process of DIPECHO tools

The project targets a wide set of direct and indirect beneficiaries: direct beneficiaries comprise national Disaster Risk Management (DRM) institutions, public and private institutions, EWS staff, National Red Cross Societies, and selected communities involved in the project. Direct beneficiaries also include Cuban institutions at national and provincial levels that will benefit from national validation process of tools, and specific capacity development directed at effective transmission of practices and approaches; national disaster managers in Eastern Caribbean countries; Country Focal points for UNDP DRR Projects, and staff of various national institutions participating in the project activities.

The project directly benefited 173 organizations with 24,854 individuals: 158 national institutions in Cuba (24), Saint Vincent and Grenadines (13), Dominica (21), Dominican Republic (29), Antigua and Barbuda (27) and Saint Lucia (42) and 15 regional bodies. Indirect beneficiaries of the project comprise communities benefitting from improved EWS integration and capacity to prepare and protect communities and livelihoods, with the catchment area for improved public awareness and campaigns covering up to 22,714,678 persons across the target countries.

**Table 1. Project beneficiaries**

	Direct beneficiaries - Institutions	Direct beneficiaries - individuals from institutions	Direct beneficiaries - individuals from community	TOTAL individual beneficiaries	Total number of indirect beneficiaries
Antigua and Barbuda	27	631	965	1,596	102,012
Caribbean Region	15	20		20	-
Cuba	24	150	0	150	11,480,000
Dominica	21	343	5,322	5,665	73,925
Dominican Republic	29	71	1,987	2,058	10,770,000
Haiti	2	12		12	-
Saint Lucia	42	149	11,834	11,983	178,844
Saint Vincent and the Grenadines	13	370	3,000	3,370	109,897
<b>TOTAL</b>	<b>173</b>	<b>1,746</b>	<b>23,108</b>	<b>24,854</b>	<b>22,714,678</b>

The project uses South-South Cooperation (SSC) as a development tool to strengthen integrated EWS based on the experience Cuba, which has a comparatively advanced integrated EWS with coherency at a community, provincial and national level. The Cuban model highlights effective hazard monitoring, comprehensive risk analysis through risk studies, tools and methodologies, coordinated alerting systems and flow, and response capacity at the community, provincial and



national levels. Based on this experience, the horizontal transfer between Cuba and 4 recipient countries (Dominica, Dominican Republic, St. Lucia and Saint Vincent and The Grenadines) included sharing of best practices and tools, adaptation of tools to other countries context, and the design of solutions packages and roadmaps for each country with the support of Cuban experts.

UNDP is the institution responsible for implementation, and it has two implementing partners – CDEMA and IFRC – in this process, whose roles and responsibilities of each institution were laid-out in the respective Letters of Agreement. The project was implemented in collaboration with national disaster management authorities: National Office of Disaster Services (NODS) in Antigua and Barbuda, Office of Disaster Management (ODM) in Dominica, Center for Emergency Operations (COE in Spanish) in the Dominican Republic, and the National Emergency Management Organizations (NEMO) in both St. Lucia and Saint Vincent and the Grenadines. These agencies are linked to the Technical Advisory Committee (TAC), the technical and programmatic advisory arm of the CDEMA, and report annually to CDEMA under the Comprehensive Disaster Management (CDM) 2012-2024 Strategy and CDM Country Work Programmes. The project had a Memorandum of Understanding with Oxfam in the Dominican Republic and a collaborative arrangement with CREWS (partnership project between WMO, WB and UNISDR).

The project has a specifically developed basic Theory of Change (ToC), with a series of assumptions and actions that explain the underlying logic of the intervention. The latter suggests that:

*If,*

- integrated EWS are strengthened, EWS communications gaps at the national/community levels are addressed, monitoring/forecasting capacities are increased, coordination for efficient dissemination of warnings is enhanced, and community-based preparedness and response capacities are fostered,

*Then,*

- disaster warning and preparedness in target countries in the Caribbean will be improved.

According to the logic of the ToC, this pathway will lead towards more effective Disaster Risk Reduction in the Caribbean, resulting in lower life losses and diseases, minimal displacement, reduced poverty and improved family wellbeing at the community level. Cumulatively, these results will lead to the protection of natural resources and saved human lives, minimized poverty, more resilient societies and sustainable development in respective countries.

The project is funded by the General Directorate of Civil Protection and Humanitarian Aid of the European Union (DIPECHO). The total budget of the project is EURO 1,372,315, of which EURO 1,150,000 is provided by the donor and EURO 222, 315 is co-financing by international organization/ECHO partner in the form of direct project costs.

The official agreement with ECHO established that the project would be for 18 months, starting on May 15th, 2017. Due to the series of challenges, described in Chapter 6, the project implementation period was extended until March 22nd, 2019. As standard for ECHO project, evaluation and final reporting can take place in the three months post-activity implementation.

The project will move to the operational closure phase when the final tranche of ECHO funding is received, expected in the 3<sup>rd</sup> Quarter of 2019.

## 2.3. Evaluation description

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### 2.3.1. Object of the evaluation

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The object of the evaluation is the UNDP project “Strengthen integrated early warning systems for more effective disaster risk reduction in the Caribbean through knowledge and tool transfer”, as articulated in the UNDP Project Document (hereinafter referred to as a prodoc), signed in August 2017 by the UNDP Regional Bureau for Latin America and the Caribbean (RBLAC) Director and UNDP Regional Hub Director, and its annexes.

This prodoc is elaborated on the basis of the standard Single Form for Humanitarian Action of ECHO, signed in May 2017. While the Single Form was used as a reference during the evaluation, it was not considered as the object of evaluation.

### 2.3.2. Purpose, objective and scope of the evaluation

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The present evaluation is commissioned by UNDP Regional Hub and was carried out under the guidance of its Sustainable Development and Resilience (SDR) Cluster. The scope of the evaluation is defined by the purpose of the evaluation and the evaluation criteria described in the Terms of Reference.

The *timing* of the evaluation is due to the completion of most project activities and the pending closure of the project in the 3<sup>rd</sup> quarter of 2019.

The *purpose* of the evaluation is therefore, to take stock of the project implementation and present the donor and UNDP with the assessment of the evidence of the completion of project activities as stipulated in the project document and workplan and the quality of implementation.

In this regard, the *objective* of the evaluation is to identify and assess from the external perspective the outputs produced and the contributions to results at outcome level and positive or negative changes produced along the way, including possible unexpected results and identify the key lessons learned and best practices.

More specifically, the Terms of Reference call for the assessment of:

- The fulfillment of the activities, the achievement of the results and the impact of the result on the fulfillment of the objectives.
- The relevance of the project at national level on strengthening EWS.
- The efficiency of regional south-south cooperation (SSC) process for the accomplishment of the objectives.
- The effectiveness (contributions/challenges) of the partnership and coordination set-up between implementing partners to achieve project results.
- Level of interrelation between this project and previous projects in the Caribbean in terms of EWS, CREWS and liaison with the new DIPECHO 2018 project.
- The effectiveness with which the ECHO, IFRC, CDEMA and RBLAC resources have been used.
- The usefulness and sustainability of the results/project targets for the beneficiaries

- UNDP, IFRC, CDEMA and other implementing partners' performance as development partners.
- UNDP, IFRC, CDEMA and other implementing partners' added value to the expected results.

Recommendations and lessons learned of the evaluation will be considered during the implementation of the second phase of the project, approved in September 2018 and/or by future regional-level projects.

Throughout the process, the evaluation considers gender equality and women empowerment as a cross-cutting issue, assessing the inclusion of gender analysis and criteria in tools and activities produced by the project. It also assesses the inclusion of other vulnerable segments of the population in the project activities and its potential benefits for them.

The unit of analysis is the *performance of the project* implemented by UNDP in collaboration with CDEMA and IFRC as described in the signed prodoc, agreements and workplans. The Evaluation covers all aspects of the project included in the period May 2017 – March 2019, focusing on all project outputs and related activities in the involved Caribbean countries. The evaluation covers stakeholders from institutions from the English-speaking and Spanish-speaking Caribbean: Saint Vincent and the Grenadines, Haiti, Antigua and Barbuda, Dominica, Saint Lucia, Cuba and Dominican Republic, as well as regional institutions, IFRC representation in the Caribbean, CDEMA, as well as UNDP representation in Cuba, Barbados/ECS and Dominican Republic country offices and Regional Hub for LAC in Panamá.

The evaluation collected and analyzed the lessons learned in the course of the Project implementation, including those learned by the implementing partners, beneficiaries and the UNDP Country Offices.

The evaluation did **not** assess the financial management of the project, however, under the efficiency criteria, it reviewed the administrative management and implementation modalities, financial and administrative arrangements and financial and human resource capacities to the extent they affected the achievement of the project outputs and implementation of planned activities. Observations and recommendations on financial are included in the final report as relevant.

The evaluation did **not** assess the technical quality of the knowledge products, methodological guidelines and tools. These were considered in terms of their utility and relevance for the achievement of the objectives of the Project.

With regards to the specific objective *...the fulfillment of the activities, the achievement of the results and the impact of the result on the fulfillment of the objectives* of the Terms of Reference, as stipulated in the Inception Report, the evaluation did **not** assess the impact of project activities, but the *possible contribution* of the result to the fulfilment of the objectives, given that the impact of the result cannot be visible by the time of the evaluation.

### 2.3.3. Use of evaluation

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The evaluation is expected to serve for accountability purposes as well as for the generation of knowledge for wider use.

The final report of the evaluation will serve as a learning document with concrete and feasible recommendations that will allow UNDP, CDEMA and IFRC to improve project management, coordination and communication, as well as South-South Cooperation during the implementation of the second phase of the project. The findings will contribute inputs for ECHO's strategy and programming of future DRR actions in the Caribbean region.

The key findings will also be helpful for all main parties (regional institutions, beneficiary countries and implementing partners) to assess their approaches to development assistance and to design future interventions.

### **3. Methodology of Evaluation**

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#### **3.1. Evaluation criteria and questions**

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The Final Report follows the requirements of the United Nations Evaluation Group (UNEG) and OECD/DAC Evaluation norms. In the absence of specific ECHO Evaluation guidelines, the evaluation also uses the UNDP, UNICEF and World Bank evaluation guidelines for reference on key concepts and definitions.

The evaluation criteria are based on the four principles described in the United Nations Evaluation Group (UNEG) and OECD/DAC norms: relevance, effectiveness, efficiency and sustainability. The commonly used definitions of these criteria have been amended to reflect the mid-term character of the evaluation and are as follows:

##### **3.1.1. Relevance**

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The Relevance criterion allows assessing the extent to which the activity is suited to national, regional and global development priorities and organizational policies, including changes over time. The evaluation analyzes to what extent the project addresses the existing national and regional challenges and how the sum of its actions refers to the overall objective of improving the EWS in the target countries and thus, increasing the effectiveness of the DRR actions in the region.

Relevance was assessed primarily by way of the interviews with stakeholders, through capturing their perceptions and comparing them with secondary information contained in the project documentation. The relevance criterion was included in the stakeholder survey.

##### **3.1.2. Effectiveness**

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Effectiveness criterion measures the extent of progress achieved towards the objectives and their contribution to the overall goal at the outcome level. The evaluation assesses whether the actions implemented by the project have contributed to the attainment of the planned objectives as specified in the project document.

Effectiveness was measured primarily by means of comparing progress towards objectives against the established indicators and targets provided in the results framework and the review of reports and project materials. This secondary data was compared with the perceptions of stakeholders obtained through interviews and survey, which included questions related to project effectiveness.

### 3.1.3. Efficiency

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The efficiency criterion measures the extent of progress towards the achievement of objectives with the least costly resources possible, in this case focusing on the efficiency of the SSC process for the accomplishment of the objectives. For this purpose, the evaluation assessed the availability, sufficiency and adequacy of the resources (human, financial and time) for the achievement of the objectives and whether adjustments were required to improve the efficiency.

Given that the evaluation did not evaluate the financial performance of the project, efficiency was assessed primarily by analyzing project milestones vs. deliverables and timeliness of implementation by means of interviews with stakeholders, and analysis of project reports.

### 3.1.4. Sustainability

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The sustainability criterion allows assessing the likely ability of the intervention results to become sustainable and deliver benefits for an extended period of time after completion. To that end, the evaluation assessed the potential for the sustainability of the tools and capacities developed by the project and handed over to project beneficiaries.

This criterion was measured primarily by reviewing the findings for relevance, effectiveness and efficiency, analysis of the existing or planned partnerships and agreements, institutional capacities and structures, and consolidating them with the stakeholder perceptions about the potential sustainability.

Please refer to Annex 1. Evaluation Matrix for the description of the evaluation criteria, respective indicative questions, ratings and information sources.

These criteria served as the basis for indicative questions for the review of primary data; they also oriented individual interviews with the stakeholders and beneficiaries, and the survey questions. The majority of the questions are indicative since not all were applicable to all respondents in all regions. Specific sub-questions were asked to each stakeholder in view of the respondents' profiles and adjusted to the interview context and format.

## 3.2. Evaluation methodology

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The evaluation type and methodology were determined by the type of the Project, evaluation timing and scope, quality of the available data and the sampling method.

The present evaluation is a *non-random process* evaluation at the *output level*. Given the design and the scope of the evaluation (summative and formative evaluation of an ending project), the evaluation was not able to apply experimental methods, which involve controlled variables and random sampling for treatment and control groups. The evaluation worked with a non-random sample constructed from the population of project beneficiaries and stakeholders from participating institutions and communities, international and national partners.

As is the case with most of the evaluations of this type, the present evaluation used the Stratified Purposive or Judgmental sampling method whereby the respondents are **intentionally** selected by the SDR Cluster and partner organizations IFRC and CDEMA from the population of project stakeholders. The selection was made on the basis of the stakeholders' association with and knowledge of the project. The evaluation combined the above sampling method with the Chain Referral sampling whereby additional respondents were identified by the initial group of respondents and the SDR Cluster and added to the sample in the course of the evaluation.

The data collection methodology was mostly **qualitative**. The **primary qualitative data** comprised the knowledge, observations and comments of the stakeholders and beneficiaries obtained through semi-structured interviews and the survey.

**The secondary qualitative data** comprised mainly the project and stakeholder-generated information, such as the project reports, tools, communication and visibility material and knowledge products. To a lesser extent, the qualitative data collection methods included the revision of the technical documentation, strategic and normative documents, methodological material, specialized reports and studies.

### 3.2.1. Desk review

A desk review is an inexpensive method of data collection that allows for repeated review and use of obtained data for different research methods. The disadvantages of desk reviews are primarily their static nature and time limitations as well as potential bias in the authors' perception of the material.

The evaluation reviewed 150 documents provided by the project management and stakeholders and methodological documentation. The following table presents the types and sources of the reviewed information:

**Table 2. Types and sources of information for desk review**

#	Source of Information	Information Description	Information Purpose
1	Basic Project Information	Project Document including the Results and Resources Framework Single Form	Information about the planned outputs and results, references, baselines, indicators and targets, strategic context and background information, implementation arrangements, progress towards the results and achievement thereof, concept notes, etc.
		Annual workplans	Information about expected results, activities and resource assigned annually, analysis of Project efficiency
		Monitoring reports, quarterly and/or annual reports, meeting and travel reports	Analysis of expected and achieved change towards the result, effectiveness of interventions, challenges and obstacles
		Implementation and management documents and agreements	Analysis of stakeholder obligations and contributions towards specific activities, coordination arrangements and implementation arrangements
2	Strategic Frameworks	Corporate, regional and international frameworks and norms on disaster risk reduction	Reference to linkages with corporate, regional and international priorities

3	Methodological guides and manuals	UNEG evaluation policies; OECD-DAC Evaluation norms and standards; Handbook for Planning, Monitoring and Evaluating Development Results Norms for Evaluating in the UN System	Guidelines for the design and implementation of evaluations of results
4	Institutional and legal maps and frameworks	Letters of agreement between UNDP and implementing partners, agreements signed by countries.	Analysis of implementation arrangements; cooperation agreements signed by the participating countries
5	SSC and Knowledge Products	Lessons learned, concept papers, case studies, systematization documents, guidelines, manuals, gap reports, checklists, roadmaps	Analysis of the quality, effectiveness and relevance of the SSC process and knowledge generated and disseminated by the Project, contribution to capacity development and sustainability of results
6	Communication and Visibility material	Communication and training materials, strategies, promotional products	Analysis of the implementation of the communication strategy and delivery of communication products
7	Stakeholder/beneficiary information	Specific profiles and functions of the involved stakeholders and beneficiaries	Developing interview questions in accordance with the respondents' institutional profile, association with the Project, etc.
		Interviews with stakeholders and beneficiaries	Primary data sources
		Interviews with UNDP, CDEMA, IFRC, OXFAM, ECHO WMO CREWS representatives, individuals who supported project implementation at different points	Analysis of project inception, design and implementation challenges, partnerships, lessons learned, triangulation

Annex 4 contains the list of the reviewed documents.

### 3.2.2. Interviews

The interview is a useful technique to collect perceptions and experiences of respondents, allowing to examine different perspectives about the same subject among different groups. As compared to surveys, the interviews allow a certain deviation from the initial structure for a more in-depth exploration of the subject matter. The evaluation applied open-ended semi-structured interviews, which were complemented by the close-ended brief questions of the stakeholder survey. While guided by the interview guide contained in Annex 3 of the present report, the evaluator did not ask all questions but adapted each subsequent interview question based on the respondents' responses and extent of information provided therein.

Depending on the respondents' profile, the questions focused on specific areas of competence and constraints identified for this particular target group, as per the results framework and signed cooperation agreements. As is customary to semi-structured interviews, much of the



sought-after information was contained in the respondents' answers and the task of the evaluator was to narrow the focus, seek clarifications and/or obtain additional information.

The inception report proposed to hold at least five interviews per target country, interviewing, representatives of the national disaster management offices, and representatives of implementing agencies and other partners, where present. The evaluator interviewed 53 stakeholders, including representatives of UNDP, CDEMA, IFRC, OXFAM, CREWS/WMO and ECHO. 18 were interviewed in-person and 33 by means of Skype/telephone interviews. The in-person interviews took place during the field visits and in Panama City; most of the virtual interviews were carried out by the evaluator from Panama City after completing field visits, however, some virtual interviews were also conducted during the field visits.

Of the 53 persons who participated in the interviews, 28 were men and 25 were women; the interviews lasted from 20 minutes to one hour.

**Table 3. Interviews by country**

Country <sup>3</sup>	Total	Individually	In Group	In-person	Virtual	Male	Female
Antigua and Barbuda	2	2	0	0	2	2	0
Barbados/T&T	6	4	2	4	2	2	4
Cuba	10	0	10	0	10	6	4
Dominica	4	4	0	0	4	2	2
Dominican Republic	10	2	8	0	10	8	2
St Lucia	4	1	3	3	1	4	0
St Vincent and the Grenadines	5	1	4	4	1	3	2
Panama	9	5	4	7	2	1	8
Other	3	1	2	0	3	0	3
<b>Total</b>	<b>53</b>	<b>20</b>	<b>33</b>	<b>18</b>	<b>35</b>	<b>28</b>	<b>25</b>

Annex 2 lists the respondents interviewed during the evaluation per country/institution.

Interview guide contained in Annex 3 was adapted to the profile of each respondent prior to interviews and field visits.

### 3.2.3. Focus groups

Focus groups are an alternative to interviews, where groups of people, ranging from 5-12 are encouraged by a moderator to share perceptions, valuation and experiences related to the task at hand. This methodology allows validating the findings obtained through other methods by observing group dynamics and interaction and especially, the achievement of consensus on a topic (or lack thereof). In addition to time-saving, the value added of focus-groups is in the mixed profile of respondents that allows making in-situ comparisons of perceptions and adjusting interview dynamics accordingly. It is highly recommended to organize focus groups with similar compositions in each country and ensure participation of a wide range of beneficiaries and stakeholders.

<sup>3</sup> Stakeholders from Haiti were not included in the sample.



Given the limited number of stakeholders in each country, it was not possible to organize focus groups as considered initially. Only one focus group meeting was organized with the Cuban experts.

#### 3.2.4. Surveys

A 25-question survey was sent to 42 stakeholders included in the initially proposed sample, of which two were added after the field missions. The purpose of the survey was to triangulate the findings obtained from desk review and interviews in accordance with the established OECD/DAC evaluation criteria. Additionally, the survey contained questions to identify strengths, weaknesses, lessons and recommendations related to project implementation. See section 5.4. for more details on the survey and Annexes 6 and 7 for the survey results for English and Spanish speaking Caribbean<sup>4</sup>.

#### 3.2.5. Visits to participating countries

The evaluation carried out two-day working visits to St Lucia and to St Vincent and the Grenadines and a 1-day visit to Barbados to interview selected respondents in person. The evaluator visited the project implementation site in St Vincent and the Grenadines.

### 3.3. Triangulation

Given the qualitative nature of the present evaluation and a relatively small size of the sample (see Chapter 5), the evaluator applied rigorous triangulation to validate the findings and achieve an acceptable level of generalization.

In order to cross-validate the qualitative information obtained through the interviews and documentation review, the evaluation applied the *methodological triangulation*. First, data obtained from interviews were triangulated with the preliminary findings of the inception phase; it was then compared with the survey data to assess the relevance, effectiveness, efficiency and sustainability of the Project. The evaluation then cross-examined the findings by type of stakeholder and country, comparing the data pertinent to each type of stakeholder in 5 different countries. The evaluation also reviewed the lessons compiled in the project reports as well as in the systematization document of the project to validate primary lessons extracted from stakeholder interviews. This juxtaposition permitted achieving certain generalization of the findings and increasing the validity of the evaluation report.

### 3.4. Ethical considerations

In line with the *UNEG Norms for Evaluation in the UN System*, the evaluation was based on the principles of independence, intentionality, transparency and ethical integrity, as well as the confidentiality of responses. The evaluator treated all the gathered information in a confidential manner, abstaining from mentioning specific references that would allow the identification of any of the respondents. All interviews were conducted only by the evaluator in the presence of respondents.

In this regard, all key stakeholders in counterpart national institutions were informed of the evaluation objectives, scope and criteria beforehand by the Regional Project Coordinator. Prior to each interview, the evaluator briefed the respondents about the evaluation scope and

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<sup>4</sup> Stakeholders from Haiti were not included in the survey.

objectives and reiterated the independent, impartial and confidential nature of the evaluation. Disclaimer about the confidential nature of the evaluation was also included in the message that accompanied the survey.

#### 4. Evaluation phases and workplan

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The Evaluation formally consisted of three phases: Inception, Analysis and project reporting, and Final Reporting:

##### 4.1. Inception phase

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The inception phase focused on researching the context through the desk study of available documentation and consultations with the Project Manager and through her, with respective stakeholders, conducted through teleconferencing and email. During this phase, the consultant developed preliminary respondent lists; evaluated the quality and availability of data for the construction of the interview formats and questionnaires; identified information gaps, limitations and risks and additional documentation requirements; developed the methodological approach and research/assessment tools. At the end of this phase, an Inception Report containing the detailed methodological approach was submitted to the project management and was approved for use.

##### 4.2. Data collection and analysis phase

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The analysis phase combined fieldwork and continuous deskwork. During this phase, the evaluator analyzed the information compiled during the inception phase, conducted and analyzed findings of interviews and launched the stakeholder survey. This phase included the travel to Barbados, St Lucia and St Vincent and the Grenadines.

##### 4.3. Final reporting phase

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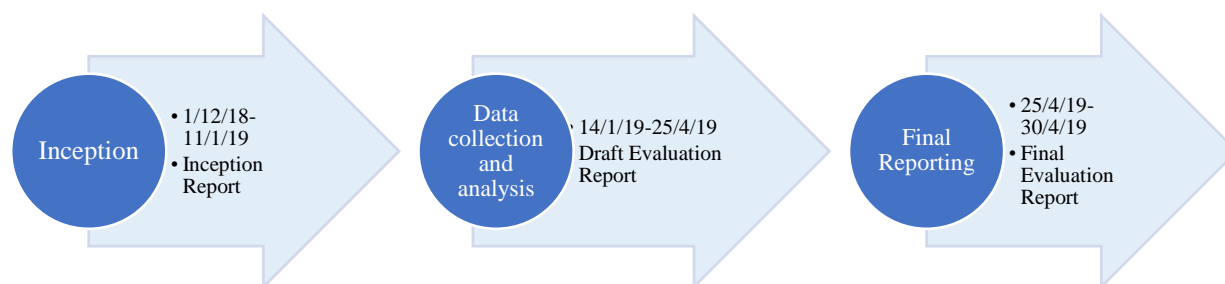
The final reporting phase consolidated the findings of the analysis phase into the final report and did not include travel.

##### 4.4. Evaluation workplan and schedule

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The initial evaluation timeframe was 1 December 2018 till 28 February 2019. Given that some of the project activities were not completed until March, the evaluation was extended until 30 April 2019.

**Figure 1. Evaluation Phases**



The table below provides the final evaluation schedule.

**Table 4. Tentative evaluation schedule**

Phases/Months	December				January				February				March				April/May			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inception phase																				
Desk Review																				
Consultations with UNDP																				
Inception Report																				
Feedback on Inception Report																				
Data collection and analysis phase																				
Interviews with stakeholders																				
Field visits																				
Survey																				
Analysis of findings																				
Draft report																				
UNDP/stakeholder feedback																				
Final Reporting Phase																				
Consolidation of comments																				
Elaboration of the final evaluation report																				

## 5. Methodological limitations and challenges

### 5.1. Type of the evaluation

Given the evaluation type (non-experimental process evaluation of an ongoing project) and the sampling method (non-random), the results of the evaluation are not generalizable and present external validity challenge. To the extent possible, the evaluation mitigated the challenge by methodological triangulation through the comparison of individual responses and their cross-validation with the primary data, the evaluator's observations and survey results.

### 5.2. Size and composition of the sample

The initial sample as suggested by the project management was composed of 53 stakeholders that belonged to 3 categories:

- Implementing agencies and partners (UNDP - 13<sup>5</sup>, CDEMA - 2, IFRC and National Red Cross Societies - 8 and OXFAM - 1);
- Beneficiary institutions (national disaster management offices and sectoral agencies in participating countries - 26);
- Other (ECHO -2, WMO CREWS - 1);

<sup>5</sup> Including staff of UNDP Country Offices in Cuba, Barbados, Dominican Republic, UNDP Regional Hub for LAC and UNDP consultants.

The sample was further categorized geographically, based on the location of the stakeholders.

The initially suggested stakeholder lists for each country were relatively small: the largest contained 10 persons (Cuba) and the smallest – 4 (St Vincent and the Grenadines). During the data collection phase, the size and the composition of the sample changed: the total list of stakeholders invited to interviews increased to 63, with the list for Cuba remaining the largest (10) and Antigua and Barbuda – the smallest (5). The size of the country samples does not allow for country-specific generalization, however, cross-examining the country responses and juxtaposing with implementing agency and other responses allows validation of findings to a certain extent.

The sample did not contain representatives of communities, civil society and private sector as mentioned in the project document, limiting the scope of the analysis and the validity of the findings.

Not all interviewed stakeholders completed the survey; likewise, not all respondents who completed the survey were available for interviews.

Annex 2 provides the table with the final sample, including information for interviews and survey completion.

### 5.3. Availability of respondents

While the list of participants was duly provided by the Project, many interviews were not carried out during the field visits due to the unavailability of some national and regional respondents and unforeseen changes in the agenda. Most notably, during the meeting planned with stakeholders in St Lucia, only one of the invited stakeholders was interviewed: one stakeholder arrived but declared no knowledge of the project and only being involved in the second; one stakeholder, who initially arrived for the meeting, departed early for another meeting and had to be interviewed separately after the field visit; another, who had also left could not be contacted after the field visit. One confirmed stakeholder did not arrive; another was suggested for the interview but could not be contacted. To avoid complete failure of the meeting, two NEMO staff were called in to answer the evaluation questions.

The final list of stakeholders of 58 persons suggested for interviews increased to 63 by the end of the evaluation. Of the final 63, 53 (84%) were interviewed.

Stakeholder availability for interviews was as follows:

**Table 5. Availability for interviews**

Country	# persons Initial list	# persons final list	# persons interviewed	% of final list	Interview mode
Antigua and Barbuda	5	5	2	40	In-person/Skype
Barbados/T&T	6	7	6	86	In-person/Skype
Cuba	10	10	10	100	Telephone
Dominica	6	6	4	67	Skype/Phone
Dominican Republic	9	10	10	100	Skype/Phone
St Lucia <sup>6</sup>	6	8	4	50	In-person/Phone

<sup>6</sup> The list includes a stakeholder for the Dennery beneficiary community, suggested during the field visit who could not be contacted as well as the two last-moment stand-ins.

St Vincent and the Grenadines <sup>7</sup>	4	6	5	83	In-person/Skype
Panama/Colombia/Spain	8	9	9	100	In-person/Skype
Nicaragua/Switzerland <sup>8</sup>	4	3	3	100	Skype
Total	58	63	53	84	

#### 5.4. Quality of survey data

The 25-question survey was sent to a specific set of stakeholders, which excluded the donor, staff and consultants of the UNDP Regional Hub in Panama, acting Resident Representative of UNDP Barbados/ECS, and 3 stakeholders whose contact was not available, had no knowledge of the project and/or whose contact information was not available. In total, 42 persons were invited to fill out the survey of which, 23 (55%) complied<sup>9</sup>.

**Table 6. Survey completion**

Country	# persons invited	# responses submitted	% of total	Survey mode
Antigua and Barbuda	5	0	0	Online
Barbados/T&T	6	5	83	Online
Cuba	10	8	80	Manual
Dominica	6	6	100	Online
Dominican Republic	10	2	20	Online
St Lucia	3	0	0	Online
St Vincent and the Grenadines	6	4	67	Online
Panama	Not included			
Other	Not included			

In addition to the limited amount of responses, the quality of the survey responses was unsatisfactory: not all questions were answered; responses were not always legible and coherent; some respondents included negative factors in the questions that required listing positive factors.

#### 5.5. Knowledge of the project

During the interviews, most stakeholders demonstrated limited knowledge of the project in *its entirety* but demonstrated a reasonable knowledge of the components relevant to their profile, depending on their level of engagement. As for the survey, of the 23 persons who filled out the survey, 21 (88%) answered that they were familiar with the entire project, its objectives and deliverables.

The majority did not feel comfortable answering the question about the effectiveness and efficiency of the project, as they were not aware of the implementation beyond their area of involvement. They were prompted to discuss the achievement of results specific to their work and the answers were consolidated to gauge the extent of the project effectiveness and efficiency.

<sup>7</sup> This list comprises two stakeholders not included in the initial list provided by the project but included in the last moment by NEMO.

<sup>8</sup> ECHO/WMO CREWS.

<sup>9</sup> One stakeholder pointed to technical difficulties of the online survey and considered it methodologically not rigorous and opted not to fill out the survey.

## 6. Evaluation findings

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The chapter presents the consolidated findings of the evaluation regarding the project implementation and achievement of the planned results obtained through the review of primary and secondary data. Findings presented in this chapter reflect the opinions of the interviewed stakeholders and information contained in the reviewed material. This section does not include the appraisal of the findings by the evaluator, which are presented in Chapter 7. Conclusions.

### 6.1. Relevance

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**Finding 6.1. The project is considered mostly relevant and responsive to national and regional needs; tools and know-how offered by the project and south-south cooperation mechanisms employed for knowledge generation and sharing are considered valuable, timely and relevant.**

Based on the data obtained from the desk review, interviews and surveys, the project was considered as timely and relevant, both at national and regional levels, as it responded to the priority needs embedded in the national and regional policies and programmes and complemented the advances of the previous efforts to strengthen the EWS in the region. According to one respondent, its *“particular relevance is in going beyond the disaster risk and fostering a better understanding of the multiple hazards and their linkages with climate change and its effects on community resilience”*.

The project was viewed as timely as it consolidated years of technical assistance provided by ECHO, UNDP and other agencies for the strengthening of EWS and focused on institutionalizing the capacities and knowledge in recipient countries. Its timeliness was particularly valued as it allowed to assess the challenges and develop the solutions in the context of the hurricanes Irma and Maria that occurred during the project implementation and generated better understanding.

One aspect of the project’s relevance for participating countries is in its focus on strengthening national and local capacities and awareness through the transfer of knowledge and know-how and sharing of experiences. The project was viewed as valuable for closing knowledge gaps and identifying areas for future interventions for national disaster management agencies. The Roadmaps developed in the framework of the project, were perceived as particularly relevant as they are customized based on the gaps analysis and prioritized with the active participation of national entities, rather than in response to donor priorities. In that regard, all beneficiary countries considered national ownership of the process as another important characteristic of the project, distinguishing it from other similar interventions. In the words of one respondent from Antigua and Barbuda, *“the [EWS-related projects] have been around for a long time and [national authorities] will insist in not accepting projects for projects’ sake, they should fit into country priority, otherwise, it is not value added and takes too much effort”*.

The participating stakeholders considered the checklist as one of the most relevant and useful tools provided by the project. The respondents particularly appreciated the gaps analysis as it allowed establishing a certain baseline for future work and identify new challenges and areas of work beyond the existing knowledge. According to the stakeholders, the gap analysis allowed the national institutions to identify bottlenecks and develop specific interventions, improve inter-institutional integration and information sharing. The gaps analysis also takes stock of the

existing capacities and resources and allows for better assessment of institutional needs. As noted by a respondent from Dominica, *“the gaps analysis revealed two things: people of different sectors were not aware of the existing assets and achievements; the disaster office had more knowledge because of working with UNDP”*.

The three-tier approach (regional, national and community level actions) and engagement of different institutions for each tier were considered as appropriate by stakeholders. Most of the respondents valued the community engagement and considered volunteer observers model of the Cuban experience as an important asset. However, at least one stakeholder in Saint Vincent and the Grenadines was not in favor of the volunteer approach noting that while volunteering is a strong tradition in Cuba linked to its particular governance and societal organization, volunteer culture is lacking in Saint Vincent and the Grenadines cannot be relied upon for early warning. Instead, the respondent advocated for automatic real-time stations for monitoring river levels to minimize errors and related risks and improve data quality<sup>10</sup>.

At the national level, the project was valued for strengthening Pillar One of EWS by developing hazard, vulnerability and risk maps and Pillar Two of EWS by strengthening capacities and tools for developing own forecasting models, more precise and continuous monitoring and generate tailor-made products for the general public and relevant institutions. Respondents valued the project for increasing the awareness of hazards and finding solutions not previously tried before, which may not eliminate the risk completely but increase the resilience by knowing the risks and finding ways of adapting.

Despite Cuba’s role as the exporter of experiences and knowledge, the project was also relevant for Cuba, as it implied consolidation of the existing EWS know-how and strengthening South-South Cooperation capacities and experience. According to a Cuban respondent, *“the project harvested the fruits of a continuous process of strengthening of Early Warning and meteorological systems facilitated by ECHO and consolidated knowledge and tools developed and acquired in the process through a series of national workshops”*. As an exporter of SSC through different projects (including the UNDP CRMI regional initiative), Cuba also benefitted from a better understanding of SSC mechanisms, focusing its SSC machinery on EWS-specific issues, honing the SSC tools and strengthening articulation between actors, while also enhancing SSC capacities and tools.

At the regional level, the project was considered as valuable and timely as it contributed to ECHO’s efforts to strengthen regional institutions and consolidates information on the state of affairs of EWS in the region, highlighted the existing good practices across the Caribbean and contributed to regional awareness and knowledge sharing, which in turn contributed to regional integration of EWS. In the words of a respondent from Dominica, *“the project focuses on integration nationally and among countries, and it needs to be continued until the knowledge and practices stick”*. The project was praised for establishing a certain baseline of gaps and assets in the region and developing integrated pathways to address the issues. As mentioned by a respondent from CDEMA, *“in terms of upscaling of what it found at the national level, it allows CDEMA to learn from national assessments of what the models should be and improve coordination and its role of servicing the countries”*.

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<sup>10</sup> The evaluation did not interview any representatives of the community and could not validate the opinion of the SVG respondent with the beneficiary community or elsewhere, therefore, the expressed opinion cannot be generalized.



The survey, albeit of limited statistical significance, partially confirms the finding with 21 of 26 respondents (88%) considering the project objectives as relevant for the national and regional priorities and only 2<sup>11</sup> (14.3%) responding No.

While the overall project and most of the interventions, processes and tools were considered timely, adequate and needed, some respondents questioned the extent to which national authorities of participating countries consider them relevant, referring to the signing of the agreements during the High-level Handover event in St. Lucia by high-ranking decision-makers representatives of only 3 countries: St. Lucia (host), Cuba and the Dominican Republic. This low turnout of decision-makers was considered by some of the interviewed respondents as an indicator of a relative lack of commitment to the project and its results; others considered it not indicative, one respondent noting that “it is rather normal for ministers not to participate in events outside their countries” due to human resource constraints and other commitments<sup>12</sup>. See 6.4. for further details on the Handover Event.

Triangulation of the data does not confirm the stakeholder perception of low attendance: given the 50% turnout, the attendance was satisfactory, especially considering that the Handover meeting was attended by representatives of the participating country, including Haiti, as well as Oxfam and CREWS. This is particularly noteworthy given (i) sustainability and linkages with CREWS actions in the region, commitment to EWS and the uptake of Roadmaps as guides; (ii) the pan-Caribbean relevance of the EWS tools highlighted by the participation of the Haitian Civil Defense; (iii) importance of sharing OXFAM’s results and handover with the broader regional audience.

As reported by interviewed stakeholders and evidenced in the revised material, overall stakeholder participation in project-related activities and events, especially in the sustainability dialogues has been adequate, confirming the relevance of the project for the stakeholders.

The evaluation identified several weaknesses and challenges that may have affected the stakeholders’ perception of the relevance of specific actions. These are described in section 6.5. Implementation challenges, weaknesses and strengths.

## 6.2. Effectiveness

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**Finding 6.2. The project has achieved almost all planned milestones and output-level results, establishing mostly effective coordination, communication and horizontal transfer mechanisms and achieving satisfactory visibility.**

### 6.2.1. Achievement of planned results

Evidence obtained from the reports available by the time of the evaluation, and stakeholder responses, indicates that the project has completed all of the planned activities achieving most output-level results, and, according to the interviewed stakeholders, had a positive effect on the participating countries.

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<sup>11</sup> Both from the English-speaking Caribbean.

<sup>12</sup> Further triangulation revealed that the high-level representation from SVG, Antigua and Barbuda and Dominica did not attend due to external factors. SVG was represented by the Head of Disaster Management.



The review of output targets and indicators suggests 100 % achievement of the results and 100% execution of the budget.

#### *6.2.1.1. Result 1*

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UNDP, in close coordination with CDEMA and IFRC led the improvement of the EWS Toolkit (Caribbean Regional EWS Toolkit) with the 1) addition of the Spanish version of existing case studies, 2) revision of the webpage based on feedback from stakeholders and project partners, 3) significant changes to the layout (including the mobile interface compatibility), and 4) inclusion of additional tools from CDEMA and Cuba such as: 1) Standard for conducting hazard mapping, vulnerability assessment and economic valuation for risk assessment for the tourism sector, 2) Guide for the Development of National Disaster Risk Management Strategies for the Tourism Sector in the Caribbean, 3) Guide for the Development of National Disaster Risk Management Strategies for the Tourism Sector in the Caribbean, 4) Disaster Risk Management Strategies and Plan of Action for the Tourism Sector in the Caribbean, 5) Manual for Baseline Data Collection at the Country Level, 6) Model National Hazard Mitigation Policy for the Caribbean, Preparation of a National Hazard Mitigation Policy: Guidance Document, 7) Model Comprehensive Disaster Management Legislation and Regulations 2013 and Adaptation Guide, 8) Disaster Information Kit for the Media, 9) Family Disaster Plan, 10) Model National Operations Readiness Checklist, 11) Model National Evacuation Plan, and 12) CDEMA Model National Evacuation Plan, 13) CDEMA Model Safe School Programme Toolkit User Guide, 14) Model Integrated Relief Policy and 15) Model Integrated Relief Plan along with Cuban tools used during the implementation of priority actions.

This toolkit, redesigned on the basis of recommendations of EWS actors in project countries, is hosted by CDEMA and consolidates most relevant tools from the EWS toolkit of Cuba and IFRC's Community Early Warning Systems tool. It serves as a repository of knowledge and references on EWS in the Caribbean for policy makers and practitioners. In total, 30 different tools from the Caribbean EWS toolkit were translated into English, Spanish and French and incorporated in the website; 16 tools from the Cuban EWS toolkit translated into English; 14 tools were applied in 6 participating countries:

- Antigua and Barbuda: CAP Software, MH-EWS checklist, KAP survey, messaging and simulation procedures;
- Cuba: EWS toolkit transfer methodology/procedure;
- Dominican Republic: MH-EWS checklist, CEWS manual, immediate forecast system SISPI, adapted CEWS manual;
- Dominica: CEWS tool, MH-EWS checklist, HVR study methodology for intense rain (including 3 vulnerability maps, 1 hazard map and 1 risk map, an executive report and social vulnerability survey adapted to the country), Volunteer observer techniques;
- Saint Lucia: MH-EWS checklist, HVR study methodology for intense rain and storm surge (including three vulnerability maps, two hazard map and one risk map, an executive report and social vulnerability survey adapted to the country);
- Saint Vincent and the Grenadines: MH-EWS checklist

Through its minor component implemented in Haiti, the project addressed DRR integration through three lines of work:

- Revision, preparation and adaptation of a set of tools for the French-speaking Caribbean countries, with special emphasis on Haiti: The MH-EWS checklist, its application guide, and EWS guidelines at the community level (from IFRC EWS community toolkit) were translated into French and revised substantively to adapt them for application in the Haitian context.
- Tool translation into French and dissemination: the following seven EWS tools were translated and made them available in CDEMA EWS website. The tools were promoted with Haitian and Caribbean partners during various events throughout the project implementation.
  - Risk reduction management centers;
  - Early Warning Systems in Eastern Provinces;
  - Procedure for the preparation of the executive report on territorial studies of hazard, vulnerability and disasters risks;
  - Instructive for decision making in understanding PVR;
  - Methodology for HVR studies;
  - Multi-Hazard EWS checklist;
  - MH EWS checklist application guide;
- Coordination and involvement of Haitian representatives of key DRR institutions and institutions collaborating actively with Haiti in different project activities to promote the use of EWS tools.

Following the participation of a Haitian Civil Protection Direction (DPC) representative in the Handover event, the project team presented tools and processes carried out by the project to the representatives of the DPC, who expressed their interest in implementing the Checklist in each of the regions of the country.

#### *6.2.1.2. Result 2 and 3*

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The project supported five countries<sup>13</sup> in carrying out national assessments to identify the gaps in their Early Warning Systems. These assessments were guided by the Multi-Hazard Early Warning System Checklist, an 88-question tool developed through a consultation process among the International Network for Multi-Hazard Early Warning Systems (IN-MHEWS) partners during the ‘Multi-hazard Early Warning Conference’ in Mexico in 2017, and then adapted to the Caribbean in 2018. The Checklist, which is structured around the four key EWS elements, contains the main components and actions to which national governments can refer to when developing or evaluating early warning systems. Each target country and their National Disaster Management Systems assessed their EWS based on the checklist.

National Validation Workshops were carried out in all the countries, where key national actors reviewed the information compiled in the Checklists forming the basis for the national EWS Gap Reports. The validation process helped confirm the quality and validity of the collected data, build a consensus on the identified gaps, and identify further steps. The findings of the assessments were transformed into priority actions to address specific gaps and to guide national and local efforts and investments, towards improving and strengthening integrated multi-hazard early warning systems, through the formulation of a national EWS Roadmap<sup>14</sup>.

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<sup>13</sup> Antigua and Barbuda, Dominica, Dominican Republic, St. Lucia, and Saint Vincent and the Grenadines

<sup>14</sup> Gazol, Claudia, Systematization: Strengthening Early Warning Systems in the Caribbean – DIPECHO, draft, 2019

The initial target for the sharing of best practices included Dominica, the Dominican Republic, and Saint Vincent and the Grenadines<sup>15</sup> using four solution packages from Cuba and/or IFRC/RC, where community level interventions were requested. Initially, Cuba's work plan did not include a solutions package for Saint Lucia while it was included in the CDEMA workplan. Bilateral meetings were conducted to determine possible areas of support for gaps identified through the application of the EWS Checklist. Based on the interest in Cuban technical expertise expressed by Saint Lucia, the gap analysis was shared with Cuban experts who provided a solutions package and Saint Lucia incorporated training by the Cuban experts into the priority action.

Through these processes, a comprehensive set of knowledge, methodological tools and experiences of the Cuban hydrometeorological Early Warning System (SAT), compiled in the multimedia "SAT Toolbox" was transferred; the toolbox contains valuable documents, technical and operational procedures, methodologies and other technical materials related to the different components of the hydrometeorological EWS in Cuba, such as surveillance, forecasting and monitoring of variables associated with extreme events, risk assessment and decision-making. It also contains tools for the analysis of the monitoring data, carrying out situation analysis and the comparative Hazard, Vulnerability and Risks (PVR) studies and their use for efficient decision-making, dissemination of alerts and public messages that allow timely information to people and entities at risk and development of appropriate protection measures for the population and the economy.

Within the framework of the project, the Cuban specialists supported the identification of hydrometeorological EWS gaps in the Dominican Republic, Saint Vincent and the Grenadines, Dominica and Saint Lucia, and development of solution packages, based on the Cuban experience. Each country chose one solution to the identified gaps that were followed up by the identification of a priority action, which could be supported by Cuban technical assistance. These priority actions were expressed as proposals, whereby the recipient country identified the cooperation and support they required. Hazard, risk and vulnerability studies were undertaken for Dominica and Saint Lucia. Specialized equipment was installed in the Dominican Republic and specialists were trained in the numerical time model programs for the operational forecast. In Saint Vincent and the Grenadines, volunteer observers were trained on collecting river monitoring data and inputting them into monitoring systems.

In the case of Antigua and Barbuda, instead of a direct horizontal transfer with Cuba, IFRC, as main responder on A&B process, provided technical assistance, taking lead on developing the draft solutions package. The Priority Action submitted to the Project Board for funding through the Call for Proposals aimed to further consolidate the ongoing work on Common Alerting Protocol (CAP) practices though three priorities identified in the EWS Roadmap workshop and for which IFRC made recommendations and supported its implementation. The Priority Action focused on community response capacity, through a tsunami drill simulation.

Additionally, the EWS toolkit transfer workshops carried out in Cuba allowed strengthening its hydrometeorological EWS at the local level, through the dissemination and awareness of their experiences and the systematization of good practices among all the provinces.

The following table captures the priority actions and results per country:

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<sup>15</sup> It was not planned that Antigua and Barbuda would engage in horizontal transfer with the Cuban teams in this project.

**Table 7. Priority Actions and Results**

#	Country	Lead Institution	Modality	Selected priority	Solution Packages	Key Results
1	Antigua and Barbuda	National Office of Disaster Services (NODS)	IFRC support	<ul style="list-style-type: none"> <li>• EWS Community Awareness &amp; Knowledge Survey in the 4 targeted communities (Bethesda, Grays Farm, Point, and Urlings.);</li> <li>• Developing Training Drills &amp; Alert Scripting capability and standards in 5 critical agencies on conducting regular exercises/drills;</li> <li>• Conducting a Community Drill in one vulnerable community tied to tsunami, storm surge or fire hazards.</li> </ul>	<ul style="list-style-type: none"> <li>• Technical assistance and desk review drawing of EWS analysis reports of WMO 2010-11, UNDP 2013, the ACS/Finnish Met. Institute 2011-12 and the current online Checklist 2018.</li> </ul>	<ul style="list-style-type: none"> <li>• EWS Awareness and Knowledge Baseline established in 4 vulnerable communities;</li> <li>• CAP system operational and CAP mobile app tested on a community, in addition to other traditional methods;</li> <li>• 29 officers from 10 key national agencies were trained in Drill Scripting and Alerting;</li> <li>• 139 community members sensitized and informed on their evacuation routes, assembly points and evacuation procedures, and carried out an evacuation simulation;</li> <li>• 5 Tsunami Assembly Points identified and geo-referenced;</li> <li>• Additional Evacuation Routes signage added in the community of Bethesda.</li> </ul>
2	Dominica	Office for Disaster Management (ODM)	SSC Cuba  IFRC support	<ul style="list-style-type: none"> <li>• Hazard, Vulnerability and Risk (HRV) Studies</li> <li>• Procurement of equipment; community training</li> </ul>	<ul style="list-style-type: none"> <li>• Transfer of HVR study methodology for intense rainfalls; Creation of the river observer figure.</li> <li>• Improvement of weather forecasting capacities through training and new tools</li> </ul>	<ul style="list-style-type: none"> <li>• A Hazard, Vulnerability and Risk Study of the Roseau River Basin and the Community of Bath Estate with new ready-to-use maps for decision-makers and the community, including: <ul style="list-style-type: none"> <li>○ Final Risk Map</li> <li>○ Structural Vulnerability by Flow Speed</li> <li>○ Structural Vulnerability by Flow Speed: Close-Up Sectional View</li> <li>○ Structural Vulnerability by Vertical Distance: Close-Up Sectional View</li> </ul> </li> </ul>

						<ul style="list-style-type: none"> <li>○ Structural Vulnerability by Vertical Distance</li> <li>○ Non-Structural Vulnerability by Roads</li> <li>• A multidisciplinary group of 13 national specialists trained in HRV Flood Studies</li> <li>• 6 Fully operational HAM radio base stations</li> <li>• Communities in St Andrews, St David, St Patrick and St George trained</li> </ul>
3	Dominican Republic	Center for Emergency Operations (COE)	SSC Cuba	<ul style="list-style-type: none"> <li>• Management of Flash Flooding Without the Use of Radar</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of Cuban monitoring systems of meteorological variables without the use of radars</li> <li>• Creation of the rainfall meteorological observer figure and its integration in the monitoring system</li> <li>• Transfer of the HVR study methodology</li> </ul>	<ul style="list-style-type: none"> <li>• Fully operational WRF &amp; SisPI system established and in use, generating forecasts 4 times a day at 3, 9 and 27 km resolution, up to 36 to 72-hour periods respectively, for the following new meteorological products: <ul style="list-style-type: none"> <li>○ Hövmoller Diagram</li> <li>○ Vertical Profiles and Time Variation</li> <li>○ Aerological Diagrams for 9 cities (Americas, Arroyo Barril, Barahona, Catey, Higuero, La Romana, Puerto Plata, Punta Cana, Santiago)</li> <li>○ Meteograms</li> <li>○ Rainfall Accumulates every 24, 48 and 72 hours</li> <li>○ Rainfall Accumulates by hydrographic basin/province</li> </ul> </li> <li>• A Dominican SisPI live Web Page</li> <li>• A SisPI Installation and Use Manual</li> <li>• 17 forecast and ICT staff trained in installation, maintenance and use of WRF and SisPI</li> <li>• The Dominican Republic ONAMET reinforced with equipment (2 new servers, 1 hard drive)</li> </ul>
4	St Lucia	National Emergency	SSC Cuba	<ul style="list-style-type: none"> <li>• Hazard, Vulnerability</li> </ul>	<ul style="list-style-type: none"> <li>• Transfer of HVR study</li> </ul>	<ul style="list-style-type: none"> <li>• A Hazard, Vulnerability and Risk Study for Intense Rainfall</li> </ul>

		Managem nt Organizatio n (NEMO)	CDEMA support	and Risk (HRV) Study Flooding from Heavy Rain and Coastal Flooding <ul style="list-style-type: none"> <li>• National Consultation on CDM legislation and regulations</li> <li>• Improvement of Emergency communications for the District Disaster Committee</li> <li>• Relocation of water level sensors of the Dennery community river.</li> </ul>	methodology for intense rainfalls and storm surge.	and Coastal Flooding in Dennery Community in Saint Lucia completed with new ready-to-use maps for decision-makers and the community, including: <ul style="list-style-type: none"> <li>○ Flood from Heavy Rains Hazard Map</li> <li>○ Coastal Flooding Hazard Map</li> <li>○ Exposure factor, damaged factor, population exposure, and non-structural vulnerability index and curves charted</li> <li>○ Flood from Heavy Rains Risk Map</li> <li>○ Coastal Flooding Risk Map</li> </ul> <ul style="list-style-type: none"> <li>• A multidisciplinary group of 21 national specialists trained in HVR Flood Studies</li> <li>• A series of practical lessons and recommendations for Dennery and for the country in general to increase its ability for HVR (See Lessons Table below for a summary).</li> <li>• Improvement of river discharge monitoring capacity in Dennery Community</li> </ul>
5	St Vincent and the Grenadine s	National Emergency Managem nt Organizatio n (NEMO)	SSC Cuba	<ul style="list-style-type: none"> <li>• Volunteer River Observation</li> </ul>	<ul style="list-style-type: none"> <li>• Transfer of HVR study methodology for intense rainfalls;</li> <li>• Creation of the river observer figure;</li> <li>• Improvement of weather forecasting capacities through training and new tools.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased river monitoring data generation with the purchase and installation of additional river monitoring equipment for the South Rivers community in the Colonaire River and in the Vermont community in the Buccament River, specifically: <ul style="list-style-type: none"> <li>○ Real-time radar water level sensors</li> <li>○ Automatic rain gauges</li> <li>○ Water level staff gauges</li> </ul> </li> <li>• Training of 5 volunteer observers for river and rainfall monitoring (4 women and 1 man)</li> </ul>

The project carried out sustainability dialogues in order to raise awareness on the importance of MHEWS to validate the roadmaps developed by the project. These dialogues, organized by CDEMA in St. Vincent and the Grenadines on 16 October, 2018, Antigua and Barbuda on 26 October, 2018, Saint Lucia on 6 December, 2018 and Dominica on 9 January, 2019, had active participation of relevant national institutions and laid bases for future actions towards enhanced EWS and increased resilience to disaster risks.

The project carried out the *Systematization: Strengthening Early Warning Systems in the Caribbean*, which examines two key aspects of the project: (i) results and lessons of the national assessment and planning processes to strengthen Early Warning Systems in each country, fostered by the project; and (ii) results, lessons, processes and tools used to implement selected Roadmap priority actions through South-South Cooperation (SSC) between the target Caribbean countries and Cuba. The systematization covers the EWS process, including the checklist, gap validation and roadmap; South-South Cooperation process; and 5 case studies of priority actions carried out in Antigua and Barbuda, Dominica, Dominican Republic<sup>16</sup>, St. Lucia, and St. Vincent and the Grenadines.

#### 6.2.1.3. Result 4

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Further to the technical assistance provided to countries by IFRC, CDEMA and Cuban experts, described under the Result 3, the project carried out communication, visibility and advocacy actions to promote the integrated MHEWS approach and uptake of EWS toolkits and experiences.

Through its advocacy actions, the project promoted the integrated MHEWS approach and the importance of enhancing the MHEWS at national and community levels at various regional forums, reaching approximately 262,312 persons. These actions include:

- The CDM Conference in coordination with CDEMA and OXFAM, that included an EWS parallel session on EWS lessons learned after Hurricane season 2017 in the Caribbean;
- Regional Seminar on DRR exchanges in Dominica Republic, which included the presentation of Cuban EWS toolkit by Cuban representatives and presentation of the CREWS initiative on lessons learned from past 2017 Hurricane Season in the Caribbean by WMO;
- LAC Region DIPECHO partners workshop, which included the presentation of “adaptation, institutionalization and application of MH EWS checklist”, and presentation on strengthening knowledge and working techniques on EWS through SSC promotion;
- DRR Regional Platform for the Americas, where UNDP and CDEMA promoted project achievements on good practices for early warning systems for different hazards and priority investment opportunities to strengthen Early Warning Systems in Small Island Developing States;
- CDEMA TAC meeting, where MH EWS checklist was presented and endorsed by the TAC team.
- Civil Defense International Congress on Disasters in Cuba, where UNDP promoted project achievements and presented the Cuban EWS toolkit; and, solution packages designed by

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<sup>16</sup> Within the Dominican Republic priority action, *Systematization of the Experiences on the Installment of the Atmospheric WRF-ARW Model and Immediate Forecast Operating System (SisPI)* by the National Meteorological Office (ONAMET) was carried out.



Cuban expert committee to four Caribbean recipient countries. The director of DRM system from Saint Lucia and Dominican Republic received the documents during the session.

Findings related to the high-level Handover event are discussed in Chapter 6.4. Sustainability.

The project developed an external communication strategy that was aimed at four different types of audience: (i) Caribbean DRM structures, governmental DRM entities from seven countries, organizations relevant in the humanitarian and development decision making processes, EWS entities, Red Cross National Societies, Municipal and community PMR committees, selected communities; (ii) general population from seven countries involved in the project as well as those from the rest of the Caribbean region; (iii) donor community interested in supporting disaster risk reduction & recovery; and (iv) private sector companies/Non-Governmental Organizations that will be looking to work on DRR and recovery.

The strategy had two main objectives: (i) Advocacy, that emphasized a partnership-oriented approach (Sendai/CDM strategy/EWS consortium) for a comprehensive achievement of DRR results across the board and motivating authorities to invest, work and take over the responsibility of owning an effective integrated EWS at regional and national level; and, (ii) Communications, to raise awareness on EWS tools to increase the access to them at regional, national and community levels, sensitize different target groups regarding the need of strengthening the EWS aspects as one of the most effective life-saving tool, and increase the knowledge and awareness of EWS tool/actions by the authorities and population including its 4 pillars.

The communication strategy was developed by the Regional Project coordinator with the assistance of a BPPS policy specialist from UNDP Headquarters. Support to implementation for the communication strategy was provided by the Communications specialist at the Regional Hub. National stakeholders and implementing agencies had committed to assigning a person to assist with the implementation of the communication strategy and publications, without necessarily being part of project staff. Despite significant efforts by stakeholders to advance the communications agenda and creation of varied advocacy material and technical contents, implementation of the strategy proved to be challenging due to the human resource and time limitations as reported by the implementing agencies. Country-specific contributions varied, with Dominica leading in terms of communication activities.

The communication strategy comprised regional publications, such as articles capturing national activities achievements at national and regional level; national publications on national project activities; articles, interviews, short videos and the like to promote experiences and results by UNDP-IFRC-CDEMA staff, counterparts, beneficiaries or key EWS institutions through; blogs with key messages of communication strategy or the project objective shared through the DIPECHO Caribbean Action Plan newsletter led by Oxfam, institutional websites and regional newsletters; social media posts and to a lesser extent, traditional media engagement. Through more than 140 communication and visibility products and actions, including events, publications and social media, the project has reached approximately 211,135. An incomplete list of communication and visibility products is contained in Annex 5.

The majority of the stakeholders were of the opinion that the project has not only achieved its results but given the challenges and constraints has exceeded expectations. In the words of one



respondent, *“if we look at the level of complexity the project has overachieved the results and even though a lot has to be done in the second phase the achievements of the project have been tremendous”*.

The overwhelming majority of the stakeholders value highly the quality of the tools and knowledge transferred by the project and consider them as valuable assets for strengthening national EWS capacities for effective disaster risk reduction. The stakeholders credit the transfer process for equipping the national institutions and the implementing partners with important tools, capacities and knowledge to further expand the outreach and strengthen national and regional capacities; integrating the community vulnerability and capacity assessment processes and response plans; opening communication channels between the countries and identifying pathways for potential bilateral partnerships.

Many stakeholders considered horizontal knowledge transfer as the essence of the project and one of its most important achievements, with one respondent noting that SSC with Cuba *“has been a wow, genius response, so much achieved with so little money”* and expressed the interest in further fostering SSC with Cuba and other countries in the future. The project is credited for its contributions to regional integration and rapprochement by strengthening cooperation with CDEMA, especially for Cuba. Through this project, Cuba also advanced its cooperation with CARICOM, through its Environmental Agency AMA, the leading agency for SSC from Cuba.

Several respondents noted that while the results have been achieved successfully, there was no time for translating them into action and “operationalizing” them through more specific decision-making. Despite the successful adaptation and transfer of the tools and their high potential impact on reducing disaster risk, it was not possible to test their actual performance through application. As reported by some stakeholders, some of the countries have not yet been able to fully test the transferred tools and capacities; therefore, in light of the absence of data, it was considered too early for the evaluation to assess their effectiveness and potential impact.

Survey results indicate that 17 of the 21 respondents (81%) consider that the project has achieved its results. 2 do not know, 3 respondents - partially or to a marginal extent, and 1 responded – I would like to know the indicators used for measuring the results. As regards the question if the project has had a positive effect on its beneficiaries, 20 out of 23 (95%) beneficiaries responded Yes; and 1 – Don’t know, 1 – Still unable to fully determine and 1 – did not respond.

Interviews with stakeholders point to the overall satisfaction with the communication activities; however, many stakeholders coincide in that the complex nature of the project, multiplicity of participating countries and institutions, different entry levels and language barriers make the task of planning and coordinating communication actions quite challenging. According to the stakeholders, the strategy lacked a proper implementation mechanism that would have facilitated its implementation and monitoring and development of content by the implementing agencies and their focal points.

As for the visibility, most of the interviewed stakeholders consider that the project was adequately visible and promoted and has achieved a satisfactory level of recognition in the beneficiary population. Evidence suggests that most project documentation, publications, media material and public events handled by the implementing agencies were properly branded and

displayed logos of the donor and key institutions. However, at times, material disseminated by stakeholders via social media was not properly branded.

According to the survey, Communication was rated as adequate by 18 of the 21 respondents (86%), 1 responding Mostly Yes, 1 – was good but could be improved because some organizations did not participate and 3 responded No. As for the Visibility of the project, 14 of 21 (67%) responded that the project was sufficiently visible/recognized, and 1, that the visibility was achieved through work with representatives in the entire country; 3 responded No, 3 – Don't know and 2 - Other.

### 6.2.2. Coordination

The project had a Project Board composed of the Director of the UNDP Regional Hub for LAC, representing the UNDP Regional Bureau for LAC; representatives of national disaster management offices of Dominican Republic and Saint Vincent and the Grenadines, representing the beneficiary countries; ECHO coordinator for the Caribbean, representing ECHO; UNDP Sustainable Development and Resilience Team Leader, Regional Advisor on Disaster Risk Reduction, Regional Project Coordinator, UNDP Barbados Deputy Resident Representative and/or Climate Change and Disaster Risk Reduction Project Officer, UNDP Dominican Republic Deputy Resident Representative and/or Disaster Risk Reduction Project Officer, UNDP Cuba Deputy Resident Representative and/or Disaster Risk Reduction Project Officer, IFRC Deputy Regional Director, Head of Caribbean Country Cluster, and/or Project Officer and CDEMA Executive Director, Deputy Director, and/or project officer, representing the implementing partners. The Board was in charge of overall policy and technical guidance, inputs to and approval of plans, budgets and schedules, changes, requests and monitoring, decision-making, arbitration, oversight and endorsements. The Project Board met once in April 2018 and is set to meet at the end of June 2019 to formally close the current phase and review the progress of the next phase.

The project had three levels of coordination as described in the following table:

**Table 8. Overall Partnership Coordination**

	<b>Regional</b>	<b>Extended Regional</b>	<b>National</b>
<b>Why?</b>	Promote support for the delivery of the CDM strategy Ensure joint delivery of project results Share information Increase harmonization in the region; learn to work together	Strategic Technical Planning and Oversight	Ensure project management and transition/handover Support harmonization and joint delivery of results
<b>Who?</b>	Regional Project Coordinator-UNDP National Coordinator – UNDP, CDEMA, IFRC, UNDP Barbados Coordinator	UNDP Reg Advisor; IFRC sub-office head; IFRC Regional Manager; CDEMA Deputy Director Project Regional Coordinator-UNDP	NDMO, NS, UNDP CO, IFRC Support, CDEMA

<b>Who Convenes?</b>	Regional Project Coordinator – UNDP Reg	CDEMA convenes (responsible for agenda and minutes)	Lead agency, responsible for agenda and minutes
<b>Frequency</b>	1x/month	quarterly	1x/month
<b>Means?</b>	Webex/Skype Template for updates	Webex/Skype Template for updates	In country meeting, where possible. Skype Template
<b>What?</b>	Progress reports: country level and regional Exchange of information Planning for next month Challenges identified and addressed (issues log)	Strategic direction; oversight; budget questions	Progress updates Trouble shooting Exchange of info Planning for following month Definition of roles and responsibilities

In addition to the overall partnership and management coordination, Cuba had established a specific South-South Cooperation coordination committee of EWS Experts to provide SSC assistance. The Committee operated on two levels: (i) the Operational Expert Committee, consisting of 12 national experts, and (ii) the Extended Expert Committee, consisting of 30 specialists of a broad range of disciplines in all regions of the country.

Roles of implementing agencies were partly informed by their institutional profiles and scope of action, with each agency playing a leading role in one or more beneficiary countries<sup>17</sup> and supporting actions at regional, national, and community levels<sup>18</sup>. Thus, as part of its regional coordination role, CDEMA led the adaptation of the EWS Checklist and supporting guidance documents such as concept documents, agendas and reporting formats to support its application; sustainability dialogues in four beneficiary CDEMA Participating States (PS); and the Multi-hazard Early Warning System (MHEWS): Achievements and Strategic Path Forward High-level Hand-over Event.

In addition to leading the implementation of the Project in Saint Lucia, CDEMA supported the improvement of the EWS Toolkit with the expertise of the Webmaster who also supports the updating on statistics on the toolkit; administration of the surveys on awareness of EWS tools; and the planning and coordination meetings for the efficient implementation of the Project. CDEMA led coordination efforts with UNDP and IFRC to consolidate key methodological material and project-related information on its website, which includes the improved MHEWS in three languages (English, French and Spanish)<sup>19</sup>. The MHEWS Checklist is available in digital format to Project beneficiaries and particularly the partners who attended the High-level handover meeting held in Saint Lucia in February 2019.

IFRC's role was to support integration of the community components and response capacity into the approach for greater vertical integration. IFRC acted as a lead agency for Antigua and Barbuda and provided targeted support to the Dominican Republic. IFRC also provided support

<sup>17</sup> UNDP Barbados and ECS: Dominica, Saint Vincent and the Grenadines; UNDP Dominican Republic: Dominican Republic; CDEMA: St Lucia; IFRC: Antigua and Barbuda

<sup>18</sup> Coordination and technical support were undertaken as part of Result 4.

<sup>19</sup> <https://www.cdema.org/projects#important-links>

to Dominica and Saint Vincent and the Grenadines through the National Red Cross and Red Crescent Societies. As a result of the IFRC support, warning and response components of the EWS in Antigua Barbuda and the Dominican Republic are more integrated and forecasting and warning are improved. The Meteorological Service in the Dominican Republic – despite not having a radar capability – can provide a forecast for early warning 4 times a day for 36 to 72-hour periods using Weather Research Forecasting Model (WRF) and Immediate Forecast System (SisPI) applications at various resolutions. There is a greater EWS awareness and community feedback as well as an improved EWS message. The community members have expanded their EWS and hazard awareness through simulation and response.

IFRC led the adaptation of the 2014 Community Early Warning Field Guide training tool, its testing for the Caribbean environment, its translation and adaptation for the Dominican Republic. The IFRC also adapted the 2016 CEWS Field Guide and Presentations Toolkit and the Training of Trainers (ToT) Tool, and shared the EWS-related documents to be hosted on the CDEMA and CADRIM<sup>20</sup> websites, such as Introduction to VCA, EWS Guiding Principles 2016, Public Awareness and Public Education for Disaster Risk Reduction: A Guide and Key Messages, Family Disaster Plan, and the like.

Most of the interviewed stakeholders who were aware of the project coordination mechanisms considered it mostly adequate, efficient and meriting replication in the second phase, despite certain deficiencies. In the words of one respondent, *“monthly coordination kept us on our toes, it was a good mechanism to keep implementation on target and while it was annoyingly intense in the beginning, stepping back it was a good decision to have these different layers of coordination that ensured simultaneity and coherence of project interventions”*.

According to the interviewed stakeholders, the interagency collaboration was the biggest success from the organizational perspective, some calling it *“phenomenal”* and *“never seen in other organizations”*. According to the respondents, project coordinators worked well as a team, were open to new ideas, were solutions-oriented and spoke with common messages with the countries, maintaining a unified message and approach with different stakeholders. As noted by one respondent, *“it was a kind of a team that makes a lot of difference especially when working with multiple partners, levels and countries”*.

Based on the stakeholder survey, 16 of 23 respondents (76%) considered coordination arrangements as adequate, 1 - In some ways yes as significant efforts were made to have strong coordination including through common guidance for implementation; 3 - responded No, 1 responded – not totally, 1 – did not respond.

### 6.2.3. Synergies with other initiatives

The project established internal and external synergies with various initiatives and projects implemented in the region.

The collaboration agreement between UNDP, CDEMA and IFRC, allowed enhancing regional linkages and dialogue about DRR and EWS approaches: Partnership with CDEMA supported long-term regional leadership in EWS, commitment of governments to EWS and sustainability of the investment and mainstreaming the CDM Strategy in the project. Partnership with IFRC

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<sup>20</sup> [www.cadrim.org](http://www.cadrim.org)

ensured a comprehensive approach on strengthening EWS and a greater iteration of EWS at national and local level.

Within the project framework, IFRC established internal synergies with its other programmes and funding initiatives. i) CEWS interventions in the IFRC's Community Resilience Building Programme via support of Global Affairs Canada and the Canadian Red Cross, and the OFDA. ii) Provision and testing of CAP software for Antigua and Barbuda through the IFRC Hurricane Irma Appeal. ii) partnership between the Met Service and Dominica Red with CIMH to identify, procure, install and test hazard monitoring instruments for floods and landslides.

The project created synergies with the Oxfam DIPECHO Cuba-Disaster Risk Project that included, on one hand, joint newsletters every four months, drafting of the launch press release and repost of all partners' articles; and on the other, and in coordination with CDEMA coordination of the Action Plan launch event and low-level planning meeting in the framework of the CDM Conference, ii) facilitation of bilateral informal meetings between CDEMA, Cuba and Dominican Republic and Oxfam in the aftermaths of the hurricane emergency; and, iii) organization of a joint final high-level handover event.

The project coordinated closely with the CREWS, benefitting from and building on the base model of the CREWS EWS checklist and participating in various joint events, including the Stocktaking Lessons Learnt Initiative to maximize the potential of both actions on strengthening EWS in the Caribbean region. The initiative resulted in a report on lessons learned on early warning systems during the last 2017 Hurricane Season.

In collaboration with Cuba's EWS Expert Committee, HVR studies and lessons learned from similar experiences in Dominica and Saint Lucia were translated into French to contribute to the external SSC process between Cuba and Haiti. Also, in the Dominican Republic, UNDP coordinated with the Cuba EWS committee and WFP to strengthen weather forecasting capacities through the training on the use of the numerical model WRF/ARW.

In Dominican Republic, the project supported the organization of the Regional summit for Exchanging innovate experiences and new practices on disaster risk with the EU-funded project "Strengthening the organizational and functional structures of Disaster Risk Management in the Dominican Republic", coordinated by the National Emergency Commission (CNE) of Dominican Republic, the Directorate-General for Multilateral Cooperation (DIGECCOM).

The project maintained close relationship with UNISDR aligning its activities with UNISDR guidelines, sharing the information and documentation with all partners including Oxfam, in charge of Communication products; organizing DRR Regional Platform sessions, discussing possible approaches to some EWS-related sessions and recommended and supporting the participation of some presenters, participating in the organization of the ECHO Regional workshop in June 2018. UNISDR has contributed to the dissemination of information and promotion of project tools and created a space in Prevention Web page to publish the Cuban EWS toolkit and make it more accessible. UNISDR also participated in the project High level handover vent and supported different EWS discussions on follow-up actions.

#### 6.2.4. Gender and vulnerability

The project had made special provisions for gender mainstreaming in all project activities and ensured that gender and other vulnerability factors and gender-sensitive language were

included in the checklist and community assessment criteria<sup>21</sup>, needs of women and vulnerable groups were taken into account during the revision and selection of tools proposed to enhance the integrated EWS, as well as in the improvement of the online and community-based Early Warning toolkit and training. The project was rated as GEN2<sup>22</sup>.

To ensure proper gender mainstreaming in all project activities, the project sought the involvement of the Regional Gender Team of UNDP Regional Hub early on. The Gender Team reported participation in the pre-PAC and PAC meetings and revising the project document, suggesting ways to incorporate mainstreaming analysis. Suggestions for gender-sensitive activities and indicators were shared with CDEMA and IFRC. A concept note was developed that outlined specific actions and products for mainstreaming gender in project activities through the strategic and technical support of the Gender Team, review of the products, activities and events to guarantee uniformity and coherence and effective incorporation of the gender perspective.

The Gender Team also recommended inclusion of national gender focal points in the technical teams of the participating countries or hiring external consultants with expertise in gender and DRM, to participate in regional and national projects meetings, provide inputs and recommendations based on the main national gender gaps in each country, assist during the on-site mission of the Cuban delegation, and to coordinate with the gender team. An alternative recommendation considered the creation of a task force to ensure proper inclusion of the human rights and gender approach in project activities. Scoping mission to the Dominican Republic identified specific communication, dissemination and interaction alerts for people with disabilities (for other types of disability in addition to the already established system including sign language), for senior citizens and differentiated by gender.

The Gender Team provided guidance and reviewed the EWS checklist, making recommendations on how to collect gender-related information; the team also reviewed 5 EWS solution packages and 5 EWS roadmaps, providing comments and recommendations to enhance gender mainstreaming in these documents. The team also shared diverse tools, guidelines and good practices of different agencies on mainstreaming gender for the online EWS toolkit. Evidence suggests, that many recommendations have been included in the checklist and MHEWS, although, according to Cuban stakeholders, given the technical character of some tools, some specific gender mainstreaming and vulnerability parameters cannot be always incorporated.

Participation of men and women has been relatively even. Although data on male/female participation was not always available or consistent, information obtained from different reports and interviews suggests, that the number of adult (18-49 yrs.) female beneficiaries was, on average, relatively higher, with the exception of males above 50, who were twice as many as women in Cuba and St Vincent and the Grenadines. Disaggregated data from other countries was not available.

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<sup>21</sup> The checklist tool "Integrating Gender in Disaster Management in Small Island Developing States: A Guide" was used to ensure that the EWS checklist, gap analysis and the toolkit baseline were informed by and included questions specific to vulnerability and gender.

<sup>22</sup> The regional Gender Team reported that they were not aware of the project's upgrade to GEN2 and expressed the opinion that by the end of the phase 1, the project had not mainstreamed gender perspective throughout all its implementation to be qualified as GEN2. However, the review of the documentation suggests otherwise and the project was indeed approved as GEN 2 and there have not been any substantive comments that would question the GEN2 rating.



As reported to the evaluation, as a result of this technical support, the roadmaps for Saint Vincent and the Grenadines and the Dominican Republic achieved a higher degree of gender mainstreaming, whereas Antigua and Barbuda, Dominica and Saint Lucia, relatively little. It is understood that this was related to the quality of gender analysis carried out prior to the development of roadmaps in each country. Overall, most respondents point to increased consideration of gender issues in the discussions, tools and processes supported by the project and appreciate the inclusion of gender-sensitive criteria in the checklist and solution packages.

Despite the achievements, the evaluation encountered some weaknesses/issues related to gender and inclusion as reported by stakeholders:

- While each agency had appointed a gender focal point to review event agendas and key documentation and ensure gender mainstreaming, level of commitment and quality of work of these focal points varied and required assistance from the regional Gender Team;
- The Gender Team was not invited to project meetings as their participation was not envisaged. Neither did Gender Team collaborate with the technical team from Cuba, since it was understood that the original Cuban toolkit model could not be altered and gender mainstreaming could be addressed through the checklist and the roadmaps;
- The inclusion in some countries of key actors like representatives and entities for people with disabilities and senior citizens was considered of critical importance; however, these actors were not evenly represented across all countries, whereas groups working gender equality and women empowerment were largely absent despite the specific emphasis of the Checklist on this issue;
- As reported by stakeholders, the process of gaps analysis and roadmap elaboration in various countries revealed that gender and vulnerabilities related to age and disability, social and economic inequalities are not always considered in the local EWS and preparedness and response actions, as reported by some stakeholders. Gender and vulnerability gaps are common in the knowledge of the DRR, hazard and risk maps; however, data is not always disaggregated by gender, age and other vulnerability criteria, are obsolete or not quantified.

### 6.3. Efficiency and implementation challenges, weaknesses and strengths

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**Finding 6.3.1. The project is considered mostly efficient in terms of availability and use of funds and highly efficient in terms of use of time and human resources, especially considering the encountered challenges and delays.**

The analysis of available information indicates that the project funds were reasonable for the implementation of *planned* actions. While additional funds would have certainly allowed for expanding some country-specific actions and procuring additional goods and services (e.g. software for NODS in Antigua and Barbuda or water level monitoring equipment in Saint Vincent and the Grenadines<sup>23</sup>), the evaluation did not find any evidence of a significant shortage of funds affecting the achievement of the planned results.

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<sup>23</sup> According to a respondent from Saint Vincent and the Grenadines, the budget was underestimated since the cost of adequate equipment for water level monitoring is high. Given that the CWSA was not involved in the budget development, it had to adjust the equipment specifications to fit the established budget.

In terms of financial efficiency, the obtained evidence suggests that the project had executed 98% of programmed funds.

While the project did not envisage any resource mobilization efforts, in Antigua and Barbuda, project funds were complemented by funding obtained by the Red Cross through the emergency appeal in the aftermath of the hurricanes and funded part of the required software.

The project had a basic management structure, as reflected in the following table:

**Table 9. Project Human Resources**

Actor	Coordinator	Support
UNDP BRB	1 National Coordinator	
UNDP Cuba	1 National Coordinator	1 KM Coord
UNDP DR	1 National Coordinator	
UNDP RH LAC	1 Regional Project Coordinator	1 Research Assistant; 1 Financial Associate; 1 Regional Supervisor
IFRC	1 Regional Coordinator	1 CADRIM Tech officer; 1 Assistant; 1 Finance Officer; 1 Regional Unit Manager
CDEMA	1 Regional Coordinator	

The total cost of the project personnel was 511,201 Euros, which constitutes 37% of the total project cost.

**Table 10. Project Costs**

	Expenses		Co-financing		Total	
	EUR	USD	EUR	USD	EUR	USD
Personnel (Regional and National)	394,663	428,516	132,293	143,641	526,956	572,157
Rent and ICT	57,822	62,782	32,175	34,935	89,997	97,717
Sub-contracting (Consultants)	124,089	134,732	0	0	124,089	134,732

In terms of availability of human resources, the project implementation was rather stretched, as most of the national beneficiary institutions, as well as some implementing agencies have relatively small teams and the same personnel has to address various issues. Thus, during the hurricanes, most of the counterparts were engaged in emergency response and recovery actions and had to temporarily suspend project-related activities. Even in the absence of hurricanes, national disaster management institutions' human resource capacities are rather limited and to a certain extent, affect project implementations. Same persons in national disaster management agencies often act as focal points for different areas. Staff turnover was also an obstacle noted by various stakeholders. In Dominica, project focal points changed three times from project inception without adequate handover and notice.



Some respondents reported human resource shortages well, putting a strain on the project team and complicating coordination due to the staff work overload. Evidence suggests that these shortages were not related to limited funding given the available allocation for human resources, but to the inefficient planning of human resources.

The unexpected departure of two IFRC staff in the Dominican Republic office in November 2018 affected the implementation process in that quarter. Given the geographical scope of CDEMA action and its partnerships with a wide range of organizations, CDEMA had to handle numerous projects simultaneously, including interactions with stakeholders of other DIPECHO projects. This put significant strain on the current CDEMA team.

According to the respondents, to address the human resource shortages, local disaster specialists were contracted to support the implementation of the process, particularly the processing and the analysis of the data collected on EWS gaps and the overall disaster management system in the participating countries. One full-time consultant each in Dominica, the Dominican Republic, Saint Lucia to support the Checklist application and drafting. The consultant hired in Saint Vincent and the Grenadines, as the consultant later joined NEMO as staff halfway through the process. The consultant in Dominica was likewise placed in the ODM during the process, to ensure full and constant coordination with the ODM team. Antigua and Barbuda primarily used its own staff (Director, Deputy and Communication's Officer at NODS), and were supported with more direct, hands-on involvement of the IFRC, which assisted in facilitating consultation meetings and drafting of the report<sup>24</sup>.

Time was also scarce given the delays that affected the project implementation. As reported by several stakeholders, the project activities was suspended for three months in the first week of September due to the hurricanes. The project planning meeting of December 2017 adjusted the workplans and the project effectively commenced in January 2018 accomplishing most of the planned actions in 15 months as evidenced by Project documentation and acknowledged by stakeholders. Although the majority of the respondents consider that without hurricanes, the project would have completed the planned activities, most respondents, including the Cuban experts, agree that the project timetable and scope were rather ambitious, especially with regards to the time allocated for experience transfer in the recipient countries.

According to the Cuban respondents, the available time and financing were not sufficient for properly accomplishing the task given the magnitude of the proposed actions: technical experts considered that there was not enough time for trainings and for carrying out vulnerability studies, which were completed in less than two weeks in the beneficiary countries, whereas it takes up to two years to accomplish the same task in Cuba. The Cuban experts pointed out that two weeks is not enough to fully transfer the know-how for carrying out the vulnerability studies and the countries will need continued support. Also, many beneficiaries and the Cuban experts consider that the time allocated for training in Cuba was not sufficient to achieve the expected results and added value.

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<sup>24</sup> Gazol, Claudia, Systematization: Strengthening Early Warning Systems in the Caribbean – DIPECHO, draft, 2019

**Finding 6.3.2. The project has encountered significant challenges in the course of implementation, of which most were exogenous and therefore, beyond the project's control.**

#### *6.3.2.1. Exogenous challenges*

This section describes the challenges reported by the respondents and identified in the documents that were beyond the control of the project management and were related to environmental factors, donor requirements, institutional capacities and availability of information and the like.

The most significant challenge was the occurrence of the Hurricanes Irma and Maria, which affected the participating countries and diverted the national human resources to response and recovery efforts. National disaster agencies were fully vested in the process but were distracted by the hurricanes and functioning in recovery mode for most of the project's initial phase. Even the countries not directly affected by hurricanes participated in recovery efforts which led to slowing down the implementation and caused a significant delay in the project implementation and low execution rates in the first year of the project.

Some respondents reported a relatively low level of participation of national institutions as was the case in Dominica, where the nature of key stakeholder involvement was described more as a coordination of the consultants' work, rather than deep involvement and participation. The pace of national implementation and human resource limitations were viewed as a permanent challenge, often due to staff shortages and/or absence of technical personnel that did not allow proper participation in the project and at times required the hiring of national consultants.

The project design was also a challenging process due to changes in the initial proposal to ECHO and implementation setup, related to the late inclusion of IFRC at the suggestion of ECHO. The feedback and the request to include IFRC coincided with the Montreal Disaster Risk Reduction Platform Conference where UNDP staff were expected to participate. Likewise, the initial UNDP proposal included Saint Vincent and the Grenadines, Dominican Republic, Dominica and Cuba whereas ECHO requested the inclusion of Haiti and suggested that some of the islands prioritized by IFRC (in their original proposal) be included. The final proposal to ECHO was reformulated in a week; this request for quick turnaround does not allow for proper planning, coordination and participation of all stakeholders and adequate reworking of the budget given the time limitations.

The project encountered challenges related to the quality of the information provided for the development of priority actions. As noted by some respondents, several countries did not provide sufficient and quality information; GIS data for hazard, risk and vulnerability studies in Saint Lucia and Saint Vincent and Dominica were not accessible. In Saint Vincent and the Grenadines, the final training was postponed till March 2019 given that the data provided to Cuban experts was not accurate and had to be collected again<sup>25</sup>. Because of the delays and quality of data, some field missions, which were supposed to provide data for solution packages, were also delayed; as a result, some initial solution packages were developed before the field missions

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<sup>25</sup> When asked why the data was not accurate, one of the stakeholders responded that the initial fact-finding mission should have collected the information and passed it to the expert team, however, the latter were still requesting the missing information, possibly due to miscommunication between two teams of Cubans.

and initially lacked coherence, the latter partly due to the fact that in the absence of quality data and limited access to internet, Cuban experts had to develop the solutions on the basis of their limited knowledge of the context.

Respondents report challenges related to coordination of events, such as sustainability dialogues between the implementing agencies and national institutions that affected preparation and participation. This was mainly due to the complexity of the project and difficulties in coordinating agendas among stakeholders in the different countries. In general, the implementation pace differed between countries, depending on the size and human resource capacities of participating institutions. To the extent possible, the project mitigated these deficiencies by providing national consultants in support of national disaster management institutions.

The overwhelming majority of respondents in all countries except the Dominican Republic considered the language barrier as a significant impediment, especially during the trainings, when project managers had to step in to translate. In addition to the language-related obstacles, the respondents mention several aspects of the SSC as challenging: (i) the methodology for experience transfer and pedagogical methods applied by the Cuban experts during trainings did not properly take into account the cultural specificities of the recipient countries and were considered as lacking dynamic interaction and feedback; (ii) Development of solutions packages was based on the Cuban model and were at times difficult to adapt to different political and social environments of the recipient countries; (iii) The composition of the Cuban team would change at different stages of transfer, which affected proper understanding of the issue and continuity.

#### *6.3.2.2. Endogenous Challenges*

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This section describes challenges inherent to the implementing agencies and partners, their management structure, rules and regulations that govern the implementation of the project.

Despite the overall success of the multi-agency approach of the project, harmonizing the mechanisms and processes between agencies was challenging. The three implementing agencies have different implementation and reporting rules<sup>26</sup>, and administrative procedures, which complicated monitoring and affected coordination as financial and other information was not always available simultaneously. As reported by some beneficiaries, despite numerous monitoring trips and project-related travel carried out by the project coordination unit, the unit staff were not always able to process information and respond to assistance requests from national authorities, especially in the aftermath of the hurricanes. In order to streamline implementation, inter-agency agreements had to be adjusted.

Another important reported challenge was the distribution of funds implemented by agencies. Project funds were not distributed to agencies by results but based on the countries they covered and implied mixed management of results, whereby several agencies would be responsible for specific output results. This arrangement was directly related to ECHO's request to incorporate IFRC, which did not allow sufficient time to rearrange the entire project structure and organize the results in a way that would be more appropriate to each agencies' niche areas. Therefore, all partners were incorporated into the existing project design and financial architecture, which complicated budgeting and planning, especially given that UNDP had minimal time to develop a

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<sup>26</sup> IFRC requires 2 months to submit financial reports.

new proposal after the inclusion of IFRC. This rushed proposal development limited the possibility to properly discuss and design the budget and complicated project management and reporting.

According to some respondents, contracting of national consultants in participating countries was not contemplated in the initial design and it took some time to bring national consultants for UNDP and IFRC on board. Given the evidence that funds to cover personnel costs were in fact budgeted in the CO/LOA agreements, instead balance between personnel costs (staff/SC) and consultants could have been more realistically planned to include greater consultant costs.

While the overall experience with the transfer of the Cuban model was highly positive, the evaluation was informed of important challenges during the March training in Saint Vincent and the Grenadines. Evidence suggests that more efforts need to go into preparation of the mission. Quality of power points need to be addressed; travel and logistics need to ensure that the presenters arrive on time; supplies need to be communicated ahead of time.

Differences in internal management within UNDP Country Offices at times caused delays; despite using the same procurement guidelines, their different interpretation by UNDP Country Offices at times caused delays in payments, as was the case of DSA payments for Cuban experts, who received 80% of their DSA after completing the country visit. In Saint Vincent procurement of river flow monitoring equipment was delayed due to discrepancies in equipment specifications. Some stakeholders reported limited coordination between agencies in beneficiary countries (e.g. IFRC and UNDP in the Dominican Republic).

### *6.3.2.3 Strengths*

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Data obtained from the interviews, the survey and some project material allow to identify a series of strengths that contributed to the achievement of the results and could be translated into replicable good practices.

One of the most often mentioned strengths is the sharing practices/horizontal transfer/SSC process. Most respondents agree that despite certain obstacles and delays, the horizontal transfer was a success, that allowed the participating institutions to engage in experience sharing and learning from Cuban experience and developing potentially long-lasting partnerships. The respondents considered every component of the SSC process as the major strength of the project, highlighting the importance of this experience for the success of the project. Support provided by UNDP-hired SSC consultant was considered a highly positive factor in the successful implementation of the SSC process.

Linked to the SSC is the country-driven character of the project, noting the emphasis on strong institutional participation in the identification of the gaps and design of solutions and engagement of diverse actors in the process. Respondents also note the three-tier approach as highly positive and innovative, fostering collaboration between agencies and the communities, building rapport and enabling better institutional integration at different levels. The respondents considered the division of responsibilities between the three implementing agencies as well-thought and useful, taking advantage of each agency's comparative advantages and strengths.

Interagency collaboration was highlighted as a particularly strong feature of the project, which allowed linking community-level interventions with national action and fostered closer integration between the national disaster management agencies in participating countries. Given

the complexity of the project, the number of countries, institutions and implementing agencies involved, regular and strong coordination between UNDP, CDEMA and IFRC was considered as a crucial factor in overcoming numerous obstacles and delays and effectively completing the project.

#### 6.3.2.4. Weaknesses

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As mentioned above, the language barrier was considered a major weakness related to the horizontal/SSC; while fully aware of the impossibility of avoiding challenges caused by the bilingual nature of the project, the respondents called for better handling of translation and interpretation needs, providing well-translated documents and considering the associated delays and costs in the planning.

Despite highly valuing the established coordination mechanisms and processes, the respondents highlighted certain weaknesses in coordination and exchange of information between institutions, especially related to events and travel; as noted by several respondents, planning of events was challenging since stakeholders' agendas were not always available.

The inclusion in some countries of key actors like representatives and entities for people with disabilities and senior citizens was considered of critical importance, however, it could have been promoted more evenly across all countries as well as other key missing actors like groups related to gender equality or women empowerment who were largely absent despite the emphasis of the Checklist on this issue specifically. Another key element that most felt needed to be reinforced was the local-level participation, given that some of the key gaps are related to the vertical integration between national and local levels.

Stakeholders from some countries commented on the logistics and the design of the workshops as areas for improvement, namely easier travel arrangements and reimbursement in the case of Cuban stakeholders, and too intense and tiring training sessions as mentioned by respondents from Saint Lucia. Stakeholders from different countries mentioned that some of the material was not adapted to the recipient countries and was based on Cuban context, mentioning concepts, such as state-owned animals and neighborhood watches, unknown to the participants.

Overall monitoring arrangements were moderately effective; the project had a research assistant position, which was to undertake monitoring. This position was filled by a UNV between Sept 2017 – Sept 2018, who developed the monitoring framework. However, due to language barriers and capacity issues, the full potential of this position was not realized; the partner and Country Office monitoring functions were undertaken by the Project Coordinator.

#### 6.4. Sustainability

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**Finding 6.4. The project is considered moderately sustainable as it laid strong bases for long-term sustainability, however, it is subject to challenges related to funding, institutional capacities, legal backing and political will.**

This chapter provides the evaluation's findings on the potential sustainability of the project results and challenges thereof, based on the respondents' opinions and the revised material. This chapter does not offer the evaluator's appraisal of the sustainability of the results, which will be offered in Chapter 7. Conclusions.

The project had a strong sustainability aspect incorporated in its logic as it was considered the last DIPECHO-funded EWS project in the Caribbean and to a certain extent, was meant to provide exit strategies after years of implementation. The intervention logic built on the strengthening the four pillars of EWS and through this integrated approach, offered foundations for sustainability. Trainings, experience transfer and toolkits were aimed at strengthening institutional capacities and awareness while the gap analysis and development of solution packages intended to entrench the acquired know-how and instruments in national institutions.

An important condition of sustainability is the emphasis on national ownership and mechanisms for stakeholder participation integrated in the project logic. This was achieved through active engagement of national actors in gap analysis, identification of priority actions, data processing, verification of evidence and validation and design of the MHEWS roadmaps. The concept note, draft agenda and guidance notes for presenters and panels for the four sustainability dialogues were developed in close consultation between the implementing partners and the stakeholders and received feedback from the Extended Project Team and CDEMA.

Most of the interviewed national stakeholders manifested strong interest of their institutions to implement roadmaps in their entirety or components thereof through national plans, some (Antigua and Barbuda) indicating availability of some initial funds in the national budget. Stakeholders in Saint Vincent and the Grenadines also manifested overall commitment of the national government and backing of the Prime Minister's office.

The country roadmaps per-se are policy instruments, which, while not legally binding, provide comprehensive guidance and action points for future actions and have a strong sustainability potential. However, each roadmap has a different duration given the specific priorities and solutions identified in each country: the roadmaps for Antigua and Barbuda, Dominican Republic and Saint Vincent and the Grenadines have a three-year timeframe. While St. Lucia's Roadmap doesn't expressly establish the end date, the longest actions require two years. Dominica's timeframe is 6 months<sup>27</sup>.

Another important element of project sustainability was the sustainability dialogue process carried out in all participating countries. A key commitment made during the dialogues was the need to present the roadmaps to permanent secretaries in order to advocate for improved legal and institutional arrangements, the human and financial support required and other considerations to allow for integration and improvement of the MHEWS. Other commitments included the inclusion of the EWS Roadmap actions into the Cabinet approved three-year Work Program of the National Office of Disaster Service (NODS) 2019-2021 and sustained conversation on EWS among stakeholders in Antigua and Barbuda. The NODS is already making use of the CAP to the benefit of communities and has demonstrated a commitment to EWS in their 3-year work program. The NODS also has the support of the Line Minister for sustaining the EWS.

In Saint Vincent and the Grenadines, a review of the national roadmap is proposed as an initial task of the EWS Committee and implemented as appropriate. In Saint Lucia, the commitment was made to integrate priority actions into the work programme and programmes of partner agencies, advance the legal and institutional arrangements for MHEWS and the integration of

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<sup>27</sup> Gazol, Claudia, Systematization: Strengthening Early Warning Systems in the Caribbean – DIPECHO, draft, 2019

work with the disabled. For Dominica, key areas to consider for advancing the MHEWS relate to the institutional and legislative framework, sectoral and programming considerations.

In addition to the national sustainability dialogues, CDEMA led the “MHEWS in the Caribbean: Achievements and Strategic Path Forward High-Level Handover Meeting” in February 2019, where key project results were presented to high-level officials of beneficiary countries to mark the strategic process and way forward and obtain high-level commitment to advancing MHEWS; EWS policy implications based on the project results were identified; key strategic, planning and programming actions were identified that require regional coordination; and opportunities for cooperation and collaboration for enhanced implementation of projects under the 2019 ECHO HIP were identified. The Handover meeting was attended by representatives of the participating country, including Haiti, as well as Oxfam and CREWS. The meeting report was shared with partners and uploaded to the CDEMA website<sup>28</sup>.

During the high-level handover of the project to beneficiary institutions, the attending DRM directors reiterated their commitment to sustain the actions and strengthen of MH-EWS. High-level decision-makers from Cuba, Dominican Republic and St Lucia signed the Statements of Commitment, including the Statement of Commitment “Sustaining the Multi-Hazard Early Warning System Strengthening Process in Saint Lucia”, signed by the Prime Minister. These signatures were mentioned as indications of ownership and willingness to sustaining and expanding the achieved results.

Due to their absence at the Handover meeting, the directors of NODS of Antigua and Barbuda, NEMO of Saint Vincent and the Grenadines and ODM Dominica couldn’t sign the commitment agreements. By the time of the writing of this report, stakeholders from the remaining countries had been discussing the date for signing additional commitments. It is understood that the Hon. Minister for Social Transformation and Human Resource Development of Antigua and Barbuda<sup>29</sup> has committed to the advancement of EWS by the NODS through its workplan for the next 3 years. Based on the commitments manifested during the sustainability dialogues and some interviews, it is expected that the remaining countries will also commit to sustaining and implementing the project results. CDEMA has agreed to follow up on the signatures and it is expected to reach the lacking 3 commitments in the first half of 2019.

Despite the strong sustainability component of the project and the commitment expressed by national actors, almost all respondents consider sustainability as a challenge. This is mainly due to external factors, such as availability of funding highlighted by respondents from all countries, insufficient human resources, and technical capacities. While national disaster management agencies express their willingness to commit to roadmap implementation, most of these agencies are very understaffed and do not have sufficient technical capabilities and knowledge.

Institutionalization of tools and processes was also considered challenging, mainly due to the standard 18-month duration of DIPECHO projects<sup>30</sup>, which may be sufficient for the implementation of actions but not sufficient for providing proper advocacy and support to institutions for their appropriation by the countries. The online toolkit updated in the framework

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<sup>28</sup> <https://www.cdema.org/component/jdownloads/send/25-mhews/169-report-of-the-multi-hazard-early-warning-systems-in-the-caribbean-achievements-and-strategic-path-forward-high-level-handover-meeting>

<sup>29</sup> Line Minister for DRR.

<sup>30</sup> Project duration was increased to 24 months by ECHO.



of the project is considered as a base product which can be further adapted and upgraded with new elements as relevant for each Disaster Management agency but will require stronger institutional support and ownership by the national bodies and CDEMA in order to be sustained.

Some stakeholders identified potential obstacles to sustainability related to inadequate legal and institutional frameworks on which the MHEWS depend. For example, in Dominica, there is no legal framework to implement many recommendations; the country will have to set up institutional frameworks and structures to ensure the follow-up. Some countries also indicated the need to put in place legislation to engage private sector in the implementation of the EWS.

Ensuring community engagement is challenging given the relatively weak tradition of volunteering in some participating countries, e.g. Saint Vincent and the Grenadines. Some respondents point that to ensure proper appropriation and engagement of the different sectors of the population, especially at the community level, it is important to identify champions that would resonate with the communities and institutions and help push the message and improve awareness. In the words of one respondent, “if you don’t have a couple of persons steadily working on the issues, people go to their old business and the achievements disappear”. Continuous work with the communities is an important factor of future sustainability and implies constant education of vulnerable communities on the importance of early warning<sup>31</sup>.

Most stakeholders consider funding a major impediment to sustainability, while acknowledging the project’s efforts and advances in ensuring the long-term sustainability of the results. As highlighted by various respondents, some roadmaps provide indications of the funding needs<sup>32</sup>, but their implementation will depend entirely on donor funding since many disaster management agencies lack financial resources. As mentioned by one respondent, *“provided there is money, the agency could replicate the processes and ensure the institutional continuity, but there are no funds available”*.

According to some respondents, this is related to the relatively less importance given to disaster management issues in some countries of English-speaking Caribbean. As mentioned by one respondent, *“the problem is that in a region with constant disaster risks, there are no funds for disaster management as the issue is still considered of secondary importance in some countries”*. The respondents note, that lack of funding affects the monitoring and data collection, upkeep of infrastructure and upgrades of technologies that are essential for sustaining the results and ensuring the proper functioning of the EWS in the countries.

Several stakeholders, including national actors and implementing agencies/partners, considered the absence of the high-level representatives at the Handover event as an indication of the lack of political commitment in these countries. However, evidence of sufficient participation of the leading institutions and government agencies in national sustainability dialogues suggests a certain level of ownership and political will in all beneficiary countries, which needs further reinforcement through institutional mechanisms for proper sustainability.

When responding to the survey question: Is the project potentially sustainable? 17 out of 23 (81%) answered Yes; 5 responded Don’t know; and 1 did not respond. However, 19 out of 23

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<sup>31</sup> As noted earlier, the evaluation did not have access to beneficiary communities to triangulate the effects of the project’s community-based actions with the beneficiaries.

<sup>32</sup> E.g. Antigua and Barbuda Roadmap contains estimated budget; the Saint Vincent and the Grenadines, Dominican Republic and Antigua and Barbuda Roadmaps have costed some actions.



respondents (90%) consider that the project has contributed to the long-term reduction of disaster risk; 2 respondents - Don't know; 1 – unable to determine at this point; 1 - This impact will eventually be delivered with the adoption of the Roadmaps and their integration into work programmes.

## 7. Conclusions

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The present chapter offers the conclusions drawn by the evaluator after the analysis of the findings and triangulation. Unless specified otherwise, all statements in this chapter are those of the evaluator.

### 7.1. Relevance

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**Conclusion 7.1. Based on the findings of the report, the evaluation concludes that the project “Strengthen integrated early warning systems for more effective disaster risk reduction in the Caribbean through knowledge and tool transfer” was a relevant and needed endeavour both at the national and regional levels; the logic of intervention was innovative and adequate; partnerships and alliances established within the project effective and strategic; South-South Cooperation mechanisms and tools relevant. However, for more relevance, future interventions need to better reflect the geography, hazard and risk profile, SSC tools better adapted to national settings and institutional capacities.**

Given its country-driven nature, the project was attuned to specific requirements and characteristics of each participating country, while simultaneously addressing the priorities and challenges common to the entire region. The project's intervention logic, albeit complex, was relevant as it successfully combined three levels (regional, national and community) of intervention in one action and successfully took advantage of the institutional comparative advantage and added value of each implementing agency. This combination of the different levels of entry allowed the project to achieve a certain degree of vertical integration and efficiency and can become a valuable precedent for further cooperation on Disaster Risk Reduction in the region.

Project activities are adequate, coherent and lead to the results. Likewise, the delivery modalities and partnership arrangements are appropriate and effective. However, while providing a sense of sharing the responsibility for the result and a greater effort towards collaboration, the implementation arrangements, whereby different agencies are simultaneously responsible for the same results are not optimal from the management perspective and complicate monitoring and accountability for the results.

The strategic alliances between the implementing agencies at both regional (UNDP Regional Hub, CDEMA, IFRC) and national levels (UNDP Country Offices and projects in select countries, National Red Cross Societies) and with the national institutions (National Disaster Risk Management Institutions) have been highly relevant and adequate and have been an important factor of the project success. Likewise, partnership with the Oxfam Consortium and WMO CREWS project has been relevant and beneficial as they allowed to strengthen the synergies between the ongoing initiatives and maximize the project results.

The relevance of the project, albeit undoubtedly high, was limited by its scope, in that it only addressed a limited number of communities and hazards and a limited number of institutions. For the Theory of Change to hold and disaster warning and preparedness in target countries in the Caribbean to be improved, future interventions need to address a wider range of hazards and risks, take into account diverse social, economic and geographic characteristics of each country, identify and address all institutional and technical capacity gaps, and engage a wider group of stakeholders.

This said, the project, through its three-tier approach, use of the existing capacities and know-how and application of south-south cooperation, can be considered as a well-targeted, innovative and adaptable blueprint for future action and in that sense, its relevance is undoubtedly high.

## 7.2. Effectiveness

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**Conclusion 7.2. The project has been effective in achieving all planned output-level results in accordance with the established indicators. The progress towards the results has not been steady due to numerous obstacles, however, these were addressed and overcome in an effective and timely manner, without incurring changes to the overall project objectives and strategy. The project has also contributed significantly to the achievement of outcome-level results by installing capacities and knowledge required for lowering the risk of natural disasters.**

The project has succeeded in strengthening the integrated EWS in the participating countries, identifying and to a certain extent, closing the data and communications gaps at the national/community level and strengthening the forecasting and monitoring capacities of national and local actors.

The project has achieved measurable progress in improving the coordination capacities for timely and efficient dissemination of alerts and contributed to stronger community-based preparedness and response capacities; however, the effect of these improvements on the resilience to disasters is difficult to measure at this point and will require further observation. Overall, the project has increased the existing disaster warning and preparedness knowledge and capacities in the participating countries and contributed to a stronger integration of EWS in the Caribbean.

One of the most notable and valuable achievements of the project, which was a key factor of its success, is the effective horizontal transfer mechanism. This includes the methodology, capacities and know-how, strong bilateral networks established between the participating countries and a toolbox with tested and adaptable tools and methodologies that enables the institutional action and empowers communities. Interest and commitment of participating institutions to pursue further collaboration with Cuba and other countries within or beyond the project framework is the strongest indicator of the success of this model.

Despite its obvious success, the evaluation considers that the transfer process was rather ambitious on part of both the receiving and offering institutions, especially considering the limited timeframes and different governance, political, cultural and socio-economic characteristics of the partner countries. The evaluation agrees with the stakeholders that it is not possible to conduct an entire, robust transfer of all elements of a model in two weeks or less

without raising unrealistic expectations and affecting the quality of the process. While it is understandable that full experience transfers may not be feasible within the limited timeframe of DIPECHO projects, it is important that the exact scope of the transfer be properly defined and discussed with the counterparts to manage expectations, allow for proper planning and adjust actions to the allocated timeframe and purpose.

Quality and quantity of data required for the experience transfer may vary as not all countries collect and manage the type of information that is required by the Cuban methodology. For the transfer to be more relevant and effective, it is important to properly assess the availability of information and minimum required time to complete the transfer, adapt the methodology and the tools to the partner country specifics and adjust it to available timeframes.

The complex, but well-developed coordination model established by the project is another important achievement and a contributing factor of the success of the project, especially given the numerous challenges it encountered and the complexity of the institutional settings. The evaluation considers that without the rigorous coordination, monitoring and reporting it would have been impossible to successfully complete all planned activities, deliver all results and achieve the current level of recognition and participation given the complexity of the intervention and the series of challenges encountered during the implementation.

Despite its limited scope, the project effectively contributed to the Output 5.4 of UNDP Strategic Plan “Preparedness systems in place to effectively address the consequences of and response to natural hazards (e.g. geophysical and climate-related) and man-made crisis at all levels of government and community”. While no project is able to address all the needs and capacities, the project has set solid bases for change, equipping the institutions with relevant knowledge and tools and most importantly, created awareness on the existing gaps and identified pathways for action.

Stakeholder participation in the project implementation was highly satisfactory, especially their involvement in the identification of the gaps and development of solutions. The limited presence of high-level actors in the handover event is a concern and should be taken into account; however, the evaluation considers that stakeholder participation in the project was reasonable, especially considering the funding and human resource limitations of the participating institutions and the limited timeframe that did not allow to fully roll-out the SSC mechanism and entrench the know-how and skills in national institutions and communities. It is assumed, that the increased level of awareness will serve as a solid basis for future institutional engagement and will be properly utilized for fostering more effective stakeholder participation in the next phase.

The project has made modest achievements in terms of gender mainstreaming, mainly through identifying gender-specific indicators and notions and their inclusion in the checklist and surveys. The evaluation considers that, despite the clear evidence of strong efforts made by the project team, the intrinsic barriers and perceptions prevalent in communities and institutions are difficult to break and require more vigorous and well-defined actions, longer timeframe, strong advocacy and training both internally and with the external partners. The evaluation did not find evidence that would justify the GEN2 ranking of the project.

While the intrinsic barriers and perceptions mentioned above are beyond the scope of short-term projects, it is possible to strengthen the gender and equity aspect of the project by

addressing the overall lack of awareness on linkages between gender and disaster risk and ensure stronger mainstreaming of gender and equity in project actions. To do so, the project should be designed incorporating the gender and equity perspective from the beginning, instead of adjusting it afterwards and have proper budgetary and personnel allocations to proper mainstream gender and equity focus in all actions.

Communication and visibility actions have been highly satisfactory; with some exceptions, the project has achieved a reasonable level of visibility in target countries, however, their effect on population in terms of increasing awareness and behavioral change is not clear. Despite producing a substantial amount of diverse communication material and achieving significant outreach, it is not clear to what extent the communication efforts have affected the perceptions of the audience and increased the awareness of the EWS-related issues and project activities, as there was no evidence of measuring the change in public awareness in beneficiary populations before and after the project intervention.

The Cuban toolkit can be considered an unexpected result of the project, as this tool was not anticipated. It is the result of the project team identifying a need and seizing an opportunity to maximize the results and potential impact.

### 7.3. Efficiency

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**Conclusion 7.3. The evaluation considers that considering the significant challenges and limitations, the project has been highly efficient, achieving the results within the initial cost estimates and completing all actions within the allocated time extension. With the exception of some operational obstacles related to procurement and payments, most delays in the implementation were of exogenous nature and beyond the control of the project.**

The project has encountered significant challenges, of which the majority were of exogenous nature and were beyond the control of the project. Most important challenges were related to the reported shortage of human resources in national counterpart institutions and time.

The project team has demonstrated commendable efficiency in boosting the project execution rates after the hurricanes, accelerating the spending and adjusting timetables to ensure completion of activities. The UNDP Regional Hub team was successful in accommodating the donor's request shortly before the start of the project and adapting the original proposal without jeopardizing its intervention logic and operational capabilities.

Implementing partners' internal bureaucratic barriers related to procurement and reporting were mostly responsible for the reported delays and can be overcome with proper planning and coordination. While some delays, such as DSA payment to Cuba, were isolated events and were not reported by other respondents, others, like delays in approval and procurement were more frequent and need to be considered by responsible agencies during the planning phase.

Projects of such complexity should not be monitored by the project coordinator, nor by temporary personnel, such as the UNV, with limited language and communication capacities, as was the case of the project research assistant. Given the complexity of the project and numerous encountered challenges, having a dedicated communication specialist would have increased the

visibility of the project and helped better advocate the importance of EWS for DRR, while also strengthening national capacities to engage in public relations and advocacy work.

Likewise, having a monitoring specialist would have contributed to better coordination and identification of the bottlenecks and alleviated the task of the project team. If possible, it is important to make provisions in the projects to have communications and monitoring personnel onboard to design and coordinate the implementation of the communication strategy and ensure proper monitoring of the project.

#### 7.4. Sustainability

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**Conclusion 7.4. The evaluation concludes that the project has attained moderate-to-high degree of sustainability and faces challenges related to national ownership that need to be addressed in the second phase. As was the case of the relevance criterion, the evaluator considers that the sustainability of the project is diminished by its scope, as it only managed to address a limited number of gaps and needs and had a limited timeframe to solidify the gains and secure stronger political commitments.**

ECHO's approach to focus on consolidating and transferring the existing tested knowledge and practical experience instead of developing new tools and processes ensures certain continuity and elevates the sustainability potential of the project, especially given its short timeframe. Likewise, by fostering SSC partnerships, the project equipped the beneficiary countries with important tools to further expand and deepen the experience transfer and continue collaboration in a relatively less costly way.

However, while the purpose of the project was to address the sustainability of EWS and advocate for investment within national budgets, the objective was only partially achieved, due, on the one hand, to the limited timeframe of the project and the experienced challenges, and on the other, to the lack of institutionalization and available funding in the target countries. An 18-month project cannot achieve the desired sustainability and ownership of the results, *especially* when dealing with the transfer of knowledge, experience and tools that require longer time than the timeframe allocated by the project. It is therefore important to advocate for a greater prioritization of DRR and preparedness in national budgets.

While the project has been successful in terms of providing tools and knowledge and installing capacities (output-level results), the limited project timeframe did not allow to properly entrench the know-how and skills in national institutions and communities leading to change in the behavior (outcome-level results) that are needed for sustainability. On the other hand, despite the commitments manifested during the sustainability dialogues and the handover event, these are not legally binding, and the compliance is not guaranteed, especially considering the still prevalent focus in national budgets on emergency response as opposed to preventive focus. Unless early warning is prioritized through legal acts and budgetary allocations, sustainability of the project results is questionable.

Considering the intention of ECHO to phase out EWS-related actions in the Caribbean, it is imperative to take advantage of the 2<sup>nd</sup> phase of the project to ensure the sustainability of the results. Understanding that covering the national funding gaps and guaranteeing adoption of laws and regulatory frameworks is beyond the reach of any project, it is important that the exit



strategy go beyond sustainability dialogues and signature of non-legally binding agreements and advocate for a greater uptake and institutionalization of the results through legal acts and budgetary allocations.

While it is very unlikely that the transferred tools and knowledge will be lost, the only effective and sustainable way to ensure their further application and enhancement is their institutionalization through relevant legal acts and operationalization through budget allocations. The project was successful in transferring the tools, developing the roadmaps, installation of capacities, testing the solutions, and laying basis for sustainability through sustainability dialogues and signing of tool handovers. However, with the few exceptions, there is not guarantee that these capacities and tools will be applied, especially if faced with funds shortage and changing priorities triggered by emergencies. Without a proper appropriation through legal frameworks and organizational structures, capacities of national stakeholders installed by the project will turn into individual knowledge that can be easily lost due to staff turnover. Continuous training and secured application of the acquired technologies and skills are required and can only be guaranteed with proper institutionalization.

## 8. Recommendations

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Given that the second phase of the project has been launched before the completion of this evaluation, it is not clear to what extent the following recommendations can be applied by the project.

### 8.1. Relevance

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To ensure the relevance of the project, it is important to consider the social dimension of the disaster risk and incorporate it into the analysis and solutions. The success of the Cuban DRR system is built on a specific social and political system that addresses the issue of vulnerability, social mobility, community participation and the roles of government institutions differently from any of the beneficiary countries. This aspect, while well understood by the participating countries, needs to be properly reflected in the design of the SSC process. It is therefore recommended to **collect data on social and economic vulnerabilities and inequalities of each target territory to have a clearer understanding of how these affect their vulnerability to disasters and incorporate it in the design of specific early warning solutions.**

Likewise, to increase the relevance of the intervention, consider including the aspect of **scenario modeling to address future hazards associated with climate change** such as sea-level elevation in coastal communities, increased intensity of hurricanes and such. Cuba has already advanced in scenario modeling and can contribute valuable experience and know how to incorporate this dimension to the toolkit.

### 8.2. Effectiveness and efficiency

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For better planning, financial management and monitoring of implementation, it is recommended to avoid multiple agencies contributing to the same results. It is preferable that **each implementing agency be responsible for a specific result** of the project and retain a designated budget while maintaining close coordination and joint decision-making on key issues.

Considering the effectiveness of the project coordination mechanism, it is recommended to **maintain the coordination structure** and frequency to ensure proper monitoring and follow-up. It is recommended to organize a **meeting of project managers early in the second phase to review the lessons learned** during the first phase and discuss the ways to address them. Likewise, it is recommended to establish virtual **coordination channels and spaces for technical experts** involved in SSC to exchange lessons and tips on the implementation, challenges and mitigation measures. It is highly recommended that **both coordination level meetings** (technical and mid-management) are realized with periodicity, consistency, and attendance by all partners and team members

While staff shortages among implementing partners and national institutions are related to institutional capacities beyond the project's competency, these could be addressed during the design and planning of the intervention to avoid delays and achieve maximum efficiency. It is therefore recommended to **analyze the time required for implementation support** and ensure that agency staff are **committed to these requirements** and are not diverted to other or additional tasks. Likewise, it is recommended to **analyze personnel needs for additional support** at the beginning of the project and ensure timely contracting of personnel for these roles quickly in anticipation of need for support, taking into account that in process-oriented projects, assessing EWS/SSC/building capacity requires significant investment in HR/personnel

It is imperative that administrative and operational processes are handled in a timely manner. This includes procurement of equipment, organization of events, and travel arrangements including visas and DSA payments. Given the reported differences in contracting and procurement processes between UNDP Country Offices (and implementing partners), it is recommended to **establish a proper coordination mechanism between the operations/administrative officers** to harmonize required procedures and formats to the extent possible and calculate the required time for processing requests. It is recommended to **organize an initial meeting for all participating Country Offices and agencies**, if needed, to share different practices and requirements for effective procurement and administration and address financial reporting requirements.

It is recommended to have a **designated Monitoring and Evaluation specialist, costing shared by all implementing agencies' respective budgets**, to ensure proper monitoring of the project implementation and alleviate the burden of the project managers. It is recommended to establish a **common calendar** for sharing not only project-related activities but important events and travels of key stakeholders, important regional events and holidays to facilitate the planning of project-related activities and communication. This may require increasing the allocation for personnel in the project budget.

Likewise, to ensure proper implementation of the communication strategy and increase the visibility, it is recommended to have a **designated Communications Specialist, costing shared by all implementing agencies' respective budgets**. It is recommended to **engage key stakeholders in the design/updating of the communication strategy early on** to better tailor the messages to different audiences and support implementation. This may require increasing the allocation for personnel in the project budget.

It is important to ensure the involvement of a diverse set of stakeholders in all phases of the project to better capture the emerging needs and gaps and target different groups of

beneficiaries. It is recommended to **identify possible influencers and leaders at the community level**, such as churches, youth organizations, community leaders, local radios and businesses to identify and support volunteers and establish communication channels.

For horizontal transfer, it is **recommended to assess the feasibility of transferring an entire model on a case-by-case basis and define the exact scope of the transfer** by breaking it down into phases and adapting it to the existing circumstances, availability of data, human resources and the like. In cases when the transfer of the entire model is not feasible, it is recommended to divide the model into stages, identify which stages correspond to the length and the purpose of the project and priorities of the recipient country, and develop a roadmap for follow-up transfer actions, including continued capacity development, which may be covered by subsequent phases, other development assistance initiatives or carried out by the national institutions bilaterally.

As regards to capacity development and trainings between English and Spanish speaking Caribbean, it is essential to address the language barrier and improve the quality of materials used for trainings and experience transfer. It is recommended to **have certified translators and interpreters on board** to ensure timely quality translation of all project material and events. Translators should be provided with technical material in advance to be prepared. It is also recommended to **allocate more time for trainings** in countries, to make them less intense and more productive, and focus on specific achievable outputs.

It is recommended to define properly the **scope and targets of each national stakeholder institution** related to EWS and share it with both receiving and offering countries to better tailor the intervention to the specific needs of the institution and avoid communication gaps during the experience transfer.

In projects with a strong SSC component, it is recommended to **increase the time spent by the experts in each country** and the **frequency of missions** to allow for identification and addressing of bottlenecks and needs, improving data collection and effectiveness of trainings and experience transfer. The length and frequency of missions should be decided on case-by-case basis based on the country specifics and in consultation with both country representatives.

It is recommended that the **same Cuban team** attend the scoping mission in preparation for the transfer as well as the training/transfer, and/or designate one person specifically for this purpose to ensure proper transfer of information between missions.

While only reported by Saint Vincent and the Grenadines, quality of training is an important aspect that affects the overall effectiveness of the project. **It is recommended to improve the communication between the participating institutions, ensure proper and timely planning of the training events, including travel and payment of allowances**, exchange and validation of training materials, providing proper translation and consolidating the agenda. It is also recommended to improve the preparation and attention to the **design of the trainings**, apply diversified and participatory **training methodologies, practical exercises and testing** and include **measurable indicators** to evaluate the improvement of capacities,

Consider **simplifying the checklist and the community questionnaire for its use in different settings**, especially when working with the communities. The writing component of the questionnaire may be a barrier for some users and needs to be made more user-friendly.

### 8.3. Sustainability

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Building on the recommendations of the sustainability dialogues and commitments of the roadmaps and Handover event agreements, it is recommended **to combine a robust advocacy component with technical assistance** to support national institutions in prioritizing early warning systems in their respective legislations and budgets, ensure close follow-up on the implementation of the signed agreements and support for the signature of the pending ones.

To further foster the sustainability of the transferred tools and skills, it is recommended to **facilitate bilateral coordination channels and agreements** between the offering and recipient countries identifying focal points in participating institutions capable of carrying forward the achieved results.

It is recommended to identify and **empower institutional Focal Points** in the participating institutions to act as the champions vis-à-vis the relevant national institutions, donors and communities. It is also recommended to foster **stronger engagement of local governments and identify incentives and mechanisms for the inclusion of the private sector**.

#### 8.4. Gender and vulnerability

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Given that the second phase has already been approved, gender-related recommendations are limited in scope and subject to the availability of funds and commitment of stakeholders.

It is imperative to strengthen the awareness on the gender dimension of disaster risk **at all levels** as well as **among stakeholder institutions and implementing partners**. In this regard, it is recommended to **design short presentations on gender and disaster risk reduction for participating institutions and communities** using the existing methodologies and knowledge, such as America Latina Genera or other similar tools. Inclusion of the **Gender Team in project implementation and coordination** will help with gender mainstreaming within the project, improvement of gender-related indicators, support data disaggregation and analysis.

It is recommended to **enforce rigorous data collection and disaggregation** by gender, age, disability and other relevant criteria and its regular inclusion in reporting documents both internally, by the implementing partners, as well as by the national institutions.

It is recommended to follow-up on the commitments of the first phase and to **identify, train and empower gender focal points** in participating institutions to monitor data collection and implementation of gender-specific actions of the project.

Likewise, it is recommended to **enhance the community strategy with specific gender and DRR messages** and **identify target communities and media channels** for their dissemination.

### 9. Lessons learned

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Several lessons have been collected during the evaluation. Of these, the majority are related to the effectiveness criteria related to methodology and implementation. The remaining few include lessons related to relevance, sustainability, efficiency and gender.

#### 9.1. Relevance

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EWS fall within the bigger picture of preparing communities, and should not be considered as a standalone exercise, but need to be integrated into wider Risk Reduction programmes and

targeted interventions based on the needs of the target communities and capacities of institutions. As such, the tools transfer was relevant as it provided a set of customizable tools that can be integrated into comprehensive national and regional risk reduction programmes in the Caribbean. In this regard, it is of utmost importance to further highlight the social aspects of the risk reduction, taking into account different types of vulnerabilities and social profiles of target communities.

Unlike Cuba, with its focus on prevention with strong linkages between DRR and Climate Change, many of the participating countries prioritize response and recovery and could strengthen a risk reduction approach which address social and economic vulnerability to the impact of disasters and climate change. In this regard, a stronger emphasis on prevention allows to take into account and tackle the existing and potential vulnerabilities and increase the resilience of communities.

## 9.2. Effectiveness (contents and implementation) and sustainability

Cultural and political differences between Cuba and the beneficiary countries need to be taken into account when designing experience transfers. Cuban training methodology, while yielding results, was not necessarily the most optimal and user-friendly in that it relied mostly on the unilateral delivery of technical information and little practical work and interaction. While this may have been partly due to the time constraints, understanding cultural environments of the beneficiary institutions is essential for maximizing the benefits of the knowledge transfer and eventual sustainability of the results.

In this regard, it is important to have adequate knowledge of the capacities of the national institutions, especially of those related to response and recovery and of the effects of disasters on their functioning and project implementation. Knowledge of the capacities of national institutions is also of utmost importance for the experience transfer. The success of know-how transfer/SSC does not depend solely on the offering country but the capacity of the recipient to provide quality information related to adequate preparation, carry out the planned activities and take ownership of the experience. It is therefore important to provide training on the South-South Cooperation processes and formats not only to the offering institution but the recipients as well to ensure successful adoption of the knowledge and practices.

In countries with relatively less community awareness on the importance of early warning, it is important to take advantage of recovery efforts and financing in the aftermath of disasters to advocate for the importance of EW systems and community participation. As noted by some respondents, without the hurricanes that significantly affected the populations, many would have been so involved in the project. Memories of the recent hurricane impact may be a strong motivator for stronger community engagement in the second phase of the project.

It is of utmost importance to involve the stakeholders and beneficiaries from the ***initial design*** stage, understand how different communities function and engage them with national institutions in the search of solutions to better visualize the work of the governments and increase the confidence in disaster management institutions. Likewise, it is important to approach and engage the stakeholders long before the events to coordinate and confirm agendas, provide maximum information and secure optimal participation in key events, such as the Handover event and ensure proper appropriation of the results.

National governments are not always aware of and participate in all aspects of the regional projects' details but engage more closely through national projects. Having a national presence through a Country Office, ongoing projects or national consultants has proven to be an effective way to bring key national actors on board and obtain participation and buy-in, especially when placing support personnel in ministries and departments.

Feedback on technical documents and continuous support of the SSC process are essential for the success of experience transfer. Agencies need to provide critical analytical feedback to tools and processes to improve their quality, enhance institutional ownership and foster joint action. Likewise, support to SSC actions should not be limited to initial trainings and methodological support but accompany the project throughout the experience transfer process, systematizing the lessons and practices in the course and offering immediate feedback and adjustments as necessary. In this regard, continuous oversight of the implementing agencies is very important as it allows to identify bottlenecks early on and devise solutions.

Given the country context, it is highly complicated for Cuban participants to receive payments in several installments given the cash flow limitations. Care should be taken when planning travel-related payments to avoid unfortunate occurrences such as the delayed DSA payment for Cuban experts. Likewise, activities involving procurement need to be planned thoroughly to avoid situations when the subsequent activities cannot be initiated due to the delays in the procurement of relevant goods or services.

Carrying out project evaluation and systematization simultaneously is a challenge. Given the staff and time shortages of stakeholders, handling two simultaneous sets of interviews and data collection is burdensome and discourages participation. It is also a burden for implementing agencies as they have to organize duplicate sets of interviews, surveys and field visits with the same stakeholders and may be reluctant to bother them excessively.

### 9.3. Efficiency

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Sharing practices and tools effectively implies condensing years of accumulated experience and knowledge into a limited project timeframe and training format. Installing new structures and strengthening capacities in institutions is an incremental process and may take years. It is therefore important to define the scope and time of the knowledge transfer more realistically, factoring in the challenges and delays related to institutional characteristics, different procurement and implementation timeframes related to travel and workshop preparation, human resource capacities and the like, to avoid possible incompleteness and sustainability risks.

Regardless of the project implementation experience of any given implementing agency, studying the context and the terrain, launching the project, developing coordination mechanisms, planning procurement and contracting tends to take more time than normally allocated and at times results in hasty and inefficient decisions and unexpected bottlenecks down the road.

### 9.4. Gender

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Participation of beneficiaries in project activities had strong gender-based characteristics, whereas more females participated in trainings<sup>33</sup>. While the evaluation was not able to properly

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<sup>33</sup> As reported by some stakeholders.

confirm the claim and investigate the reasons, it may be worth to observe the pattern during the second phase to design adequate gender-mainstreaming recommendations.

Gender mainstreaming remains a challenging and sensitive concept not only among the institutions but some implementing agencies as well. It is therefore important to simultaneously address the issue of gender equality and linkages between gender and disaster risk not only with the beneficiaries but with partners as well, to ensure proper integration of gender-sensitive contents in project activities and foster a stronger commitment to and follow-up on gender mainstreaming agenda. Identification and strengthening of gender focal points in partner and beneficiary institutions is key for stronger gender equality action.

## Annex 1. Evaluation matrix with rating scale for indicative questions

Evaluation Criteria	Key questions	Data sources	Data collection methodology and tools	Indicators	Quantitative rating scale	Data analysis methods
<b>Relevance</b>	<p>Have the project activities been relevant at national/regional levels at the moment of its design?</p> <p>Are they still relevant in a political and environmental context that has evolved since the start of the project?</p> <p>Has the project become more relevant to the current context, both institutional and corporate (UNDP/CDEMA/IFRC/EU)?</p> <p>Has the activities' design been adequate?</p> <p>Has the logic of intervention been adequate?</p> <p>Are the project interventions,</p>	Project, stakeholders, beneficiaries	<p>Prodoc, project reports, lessons learned</p> <p>Interviews, Focus groups, observations.</p>	<p>Percentage of positive responses form the total of responses</p> <p>Respondents' testimonials</p>	<p>1 - Not adequate/relevant/catalytic /clear</p> <p>2 - Less adequate/relevant/catalytic /clear</p> <p>3 - Moderately adequate/relevant/catalytic /clear</p> <p>4 - Adequate/relevant/catalytic /clear</p> <p>5 - Very adequate/relevant/catalytic /clear</p> <p>1 - Not aligned/does not respond</p>	Qualitative/Quantitative

	<p>activities, adequate and lead to the results?</p> <p>Are projects innovative and catalytic? How?</p> <p>Does the project respond to the priorities of the country/region? How?</p> <p>Does the project respond to the necessities of beneficiaries?</p> <p>Are the project activities aligned with UNDP/CDEMA/EU priorities?</p> <p>Have the strategic alliances been relevant and adequate for the achievement of results?</p> <p>Which were the key lessons learned of the project?</p> <p>To what extent was the project's design and selected method of delivery appropriate to the development context and needs</p>				<p>2 – Less aligned/responds</p> <p>3 – Moderately well aligned/responds moderately well</p> <p>4 – Well aligned/responds well</p> <p>5 – very well aligned/responds very well</p>	
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<b>Effectiveness</b>	<p>of relevant beneficiaries?</p> <p>Are project activities aligned with national and sub-regional strategies and UNDP mandate?</p> <p>Did interventions take human rights and gender equality into consideration?</p>	Project Stakeholders/beneficiaries	<p>Prodoc, project reports, lessons learned</p> <p>Interviews, Focus groups, observations.</p>	Indicators and targets	<p>1 – not Steady/positive/adequate/effective</p> <p>2 – less steady/positive/adequate/effective</p>	Qualitative/Quantitative
	<p>Has the progress towards achievement of results been steady and according to the plan?</p> <p>To what extent have expected results been achieved or has progress been made towards their achievement?</p> <p>What factors influenced this? What are the project's primary results to date?</p> <p>How has the project contributed to changes towards overall objective?</p> <p>Has the project set dynamic changes and processes that move towards the</p>					

	<p>long-term outcomes? What factors influenced this?</p> <p>Is the change in the results measurable? Positive? If negative, why?</p> <p>Are institutional arrangements adequate and effective for the achievement of the outputs?</p> <p>Do the institutional arrangements between UNDP and stakeholders adequately allow for the achievement of the results?</p> <p>Did the institutional arrangements between the project and national and regional-level entities allow for the achievement of the outputs?</p> <p>Did the project contribute to changes in gender gaps?</p> <p>To what degree have key stakeholders,</p>				<p>3 – Moderately steady/positive/adequate/effective</p> <p>4 – Steady/positive/adequate/effective</p> <p>5 – Very steady/positive/adequate/effective</p> <p>Yes/No</p>	
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<b>Efficiency</b>	<p>Have the financial and human resources been sufficient to achieve the outputs?</p> <p>Have the project activities been implemented within deadline and cost estimates? Were the actions taken to solve implementation issues efficient?</p> <p>Did the project M&amp;E systems and practices allow for in-time corrective actions and tracking of the progress towards the expected results (outputs, contributions to the outcomes)?</p> <p>What lessons can be learned in terms of working with multiple countries through regional entities?</p>	Project, stakeholders, beneficiaries	Prodoc, project reports, lessons learned	<p>Percentage of positive responses form the total of responses</p> <p>Workplan implementation information</p> <p>Indicators and targets</p>	<p>1 – Insufficient/inefficient</p> <p>2 – Less sufficient/efficient</p> <p>3 – Moderately sufficient/efficient</p> <p>4 – Sufficient/efficient</p> <p>5 – Very sufficient/efficient</p> <p>Yes/No</p>	Qualitative/Quantitative
<b>Sustainability</b>	<p>What is the potential impact of the project?</p>	Project, Stakeholders, beneficiaries	Prodoc, project reports, lessons learned	<p>Percentage of positive responses form the total of responses</p>	<p>1 – Not sustainable – 5 very sustainable</p>	Qualitative/Quantitative

	<p>Are projects result potentially sustainable?</p> <p>What indications are there that the achieved results (primarily at output level) will be sustained, e.g. through requisite capacities (systems, structures, staff, etc.)?</p> <p>To what extent has a sustainability strategy, particularly in support to project activities, been developed or implemented?</p> <p>What lessons learned and best practices can be captured that could be replicable in similar regional programs?</p> <p>To what extent do the various country institutions feel an ownership of this program? What strategies could be used to increase buy-in?</p>		Interviews, Focus groups, observations.			
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	<p>Is there an adequate exit strategy?</p> <p>Are financial, institutional, environmental and social mechanisms in place to achieve sustainability of project results?</p> <p>Is the regional and/or national institutional capacity sufficient to ensure the continuity and sustainability of outputs?</p>				<p>Yes/No</p> <p>1 – not sufficient – 5 highly sufficient</p>	
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## Annex 2: Stakeholder List

#	Country	#	Stakeholders	Mode	Survey Status	Institution	Title	Contact
1	Antigua and Barbuda	1	Mr. Claude Jean	Virtual	Invited	Red Cross	DRR Officer	<a href="mailto:claudesljean@hotmail.com">claudesljean@hotmail.com</a>
		2	Mr. Philmore Mullin	Virtual	Invited	NODS	Director	<a href="mailto:pfmullin@gmail.com">pfmullin@gmail.com</a>
2	Cuba	3	Ms. Dayana Kindelan Penalven	Virtual	Invited	UNDP	KM Assistant	<a href="mailto:dayana.kindelan@undp.org">dayana.kindelan@undp.org</a>
		4	Mr. Rosendo Mesías	Virtual	Invited	UNDP	Programme Manager	<a href="mailto:rosendo.mesias@undp.org">rosendo.mesias@undp.org</a>
		5	Ms. Ida Pedroso	Virtual	Completed	AMA	National Project Focal Point	<a href="mailto:ida@ama.cu">ida@ama.cu</a>
		6	Mr. Miguel Lorenzo	Virtual	Completed	AMA	Trainer for SVG and Dominica	<a href="mailto:miguel@ama.cu">miguel@ama.cu</a>
		7	Mr. Sergio Lorenzo Sanchez	Virtual	Completed	AMA	Trainer in St Lucia	<a href="mailto:sergio.lorenzo@ama.cu">sergio.lorenzo@ama.cu</a>
		8	Mr. Jorge Olivera	Virtual	Completed	AMA	Trainer in Dominica	<a href="mailto:yoyiga2010@gmail.com">yoyiga2010@gmail.com</a>
		9	Ms. Nivian Laborde	Virtual	Completed	INSMET	Meteorological Coordinator	<a href="mailto:nivian.laborde@insmet.cu">nivian.laborde@insmet.cu</a>
		10	Mr. Harold Cantalapiedra	Virtual	Completed			<a href="mailto:harold.barreto@ama.cu">harold.barreto@ama.cu</a>
		11	Ms. Claudia Lorenzo	Virtual	Completed	AMA	PMV SLU	<a href="mailto:isaomaryc@gmail.com">isaomaryc@gmail.com</a>
		12	Mr. Rudy Montero	Virtual	Completed	AMA	National Coordinator	<a href="mailto:rudy.montero@ama.cu">rudy.montero@ama.cu</a>
3	Dominica	13	Ms. Sandra Charter-Rolle	Virtual	Completed	Red Cross	Director General	<a href="mailto:s_charterrolle@yahoo.com">s_charterrolle@yahoo.com</a>
		14	Mr. Donaldson Frederick	Virtual	Completed	ODM	Program Officer	<a href="mailto:donalsonfrederick@gmail.com">donalsonfrederick@gmail.com</a>
		15	Mr. Marshall Alexander	Virtual	Completed	MET	Senior Meteorological Officer	<a href="mailto:metoffice@cwdom.dm">metoffice@cwdom.dm</a>
		16	Ms. Gelina Fontaine	Virtual	Completed	UNDP	Local EWS Consultant	<a href="mailto:gelinaggf@gmail.com">gelinaggf@gmail.com</a>
4	Dominican Republic	17	Ms. Ana Maria Perez	Virtual	Completed	UNDP	DRR officer	<a href="mailto:ana.perez@undp.org">ana.perez@undp.org</a>
		18	Mr. Martin Acosta	Virtual	Invited	UNDP	Consultant	<a href="mailto:acostamartinesteban@yahoo.com">acostamartinesteban@yahoo.com</a>

		19	Ms. Camila Minerva Rodriguez	Virtual	Invited, declined due to survey errors and methodological deficiency	OXFAM	DIPECHO Project Coordinator	<a href="mailto:cmrodriguez@OxfamIntermon.org">cmrodriguez@OxfamIntermon.org</a>
		20	Mr. Carlos Paulino	Virtual	Invited	COE	Sub-Director	<a href="mailto:paulinocarlosm@gmail.com">paulinocarlosm@gmail.com</a>
		21	Mr. Gregorio Gutierrez	Virtual	Invited	COE	Head, Technology Department	<a href="mailto:vfknight@gmail.com">vfknight@gmail.com</a>
		22	Mr. Miguel Campusano	Virtual	Invited	ONAMET	Sub-Director	<a href="mailto:acampunsano@gmail.com">acampunsano@gmail.com</a>
		23	Mr. Emmanuel Alvarez	Virtual	Invited	ONAMET	Synoptic forecaster	<a href="mailto:iestevezc@yahoo.com">iestevezc@yahoo.com</a>
		24	Mr. Wagner Lorenzo	Virtual	Invited	ONAMET	Head, Operative Meteorology	<a href="mailto:waglor@yahoo.com">waglor@yahoo.com</a>
		25	Mr. Jose Medina	Virtual	Invited	ONAMET		<a href="mailto:jmedinah09@gmail.com">jmedinah09@gmail.com</a>
		26	Mr. Rafael Antonio Nuñez	Virtual	Completed	INDRHI	In charge of ICT	<a href="mailto:ranovalles@gmail.com">ranovalles@gmail.com</a>
5		27	Ms. Avlon Chalery	Virtual	Invited	NEMO	Involved in Legislation Consultation	<a href="mailto:avloncharlery@gmail.com">avloncharlery@gmail.com</a>
		28	Mr. Malcolm Job	In-person	Not included, stand-in	NEMO	Maintenance Officer	-
		29	Mr. Junior Imam	In-person	Not included, stand-in	NEMO	Inventories Officer	-
		30	Mr. Humphrey Regis	In-person	Contact not available	NEMO	Community participant for priority action	-
6	St Vincent and the Grenadines	31	Ms. Dora James	Virtual	Invited	Red Cross	Director-General	<a href="mailto:dorajamesedu@gmail.com">dorajamesedu@gmail.com</a>
		32	Mr. Kenson Stoddard	In-person	Invited	NEMO	Deputy Director	<a href="mailto:kenson.stoddard@gmail.com">kenson.stoddard@gmail.com</a>
		33	Ms. Houlde Peters	In-person	Completed	NEMO		<a href="mailto:nemosvg@gmail.com">nemosvg@gmail.com</a>
		34	Mr. Mikhail Akers	In-person	Completed	CWSA	CWSA technical expert	<a href="mailto:makers@cwsasvg.com">makers@cwsasvg.com</a>
		35	Mr. Danroy Ballantyne	In-person	Completed	CWSA	Central Water and Sewerage Authority	<a href="mailto:dballantyne@cwsasvg.com">dballantyne@cwsasvg.com</a>
7	Barbados and T&T	36	Ms. Tamara Lovell	Virtual	Completed	IFRC	DIPECHO/IFRC Reg. Coordinator	<a href="mailto:tamara.lovell@ifrc.org">tamara.lovell@ifrc.org</a>
		37	Ms. Nicole Williams	Virtual	Completed	IFRC	Technical specialist	<a href="mailto:nicole.williams@ifrc.org">nicole.williams@ifrc.org</a>

		38	Ms. Alexcia Cooke	In-person	Completed	CDEMA	Technical Team	<a href="mailto:Alexcia.Cooke@cdema.org">Alexcia.Cooke@cdema.org</a>
		39	Mr. John Walcott	In-person	Completed	UNDP	DM/CC Officer	<a href="mailto:john.walcott@undp.org">john.walcott@undp.org</a>
		40	Ms. Chisa Mikami	In-person	Not included	UNDP	Resident Representative UNDP Barbados	<a href="mailto:chisa.mikami@undp.org">chisa.mikami@undp.org</a>
		41	Mr. Marlon Clarke	In-person	Invited	UNDP	DRR Technical Coordinator	<a href="mailto:marlon.clarke@undp.org">marlon.clarke@undp.org</a>
8	Panama	42	Ms. Janire Zulaika	In-person	Not included	UNDP RH	DIPECHO Regional Coordinator	<a href="mailto:janire.zulaika@undp.org">janire.zulaika@undp.org</a>
		43	Ms. Jacinda Fairholm	In-person		UNDP RH	Regional Advisor a.i.	<a href="mailto:jacinda.fairholm@undp.org">jacinda.fairholm@undp.org</a>
		44	Ms. Vanessa Hidalgo	In-person		UNDP RH	Communication Officer	<a href="mailto:noemi.lagrotta@undp.org">noemi.lagrotta@undp.org</a>
		45	Ms. Noemi La Grotta	In-person		UNDP RH	Finance/Admin Associate	<a href="mailto:vanessa.hidalgo@undp.org">vanessa.hidalgo@undp.org</a>
		46	Ms. Almudena Montoliu	In-person		UNDP RH	DIPECHO Regional Coordinator	<a href="mailto:almudena.montoliu@undp.org">almudena.montoliu@undp.org</a>
		47	Ms. Karold Guzman	In-person		UNDP RH	Administrative Assistant DRR	<a href="mailto:karold.guzman@undp.org">karold.guzman@undp.org</a>
		48	Ms. Maribel Landau	In-person		UNDP RH	Project Board	<a href="mailto:maribel.landau@undp.org">maribel.landau@undp.org</a>
		49	Mr. Fernando Gallindo	In-person		UNDP RH	KM Consultant?	<a href="mailto:fernandogalindoprimer@gmail.com">fernandogalindoprimer@gmail.com</a>
9		50	Ms. Barbara Auricchio	In-person	Not included	UNDP RH	Gender Specialist	<a href="mailto:barbara.auricchio@undp.org">barbara.auricchio@undp.org</a>
		51	Ms. Karina de Leon	Virtual		ECHO	Programme Assistant	<a href="mailto:karina.de-leon@echofield.eu">karina.de-leon@echofield.eu</a>
		52	Ms. Monserrat Julve	Virtual		ECHO	Surge	<a href="mailto:Montserrat.Julve@echofield.eu">Montserrat.Julve@echofield.eu</a>
		53	Ms. Donna Pierre	Virtual		CREWS	DRM Specialist	<a href="mailto:dpierre@wmo.int">dpierre@wmo.int</a>



### **1. Evaluator Introduction**

- 1.1. Presentation of Evaluator
- 1.2. Presentation of Evaluation purpose, objectives, scope
- 1.3. Ethical considerations: disclosure of impartiality, independence and anonymity
- 1.4. Request for permission to record

### **2. Respondent information**

- 2.1. Brief introduction by the respondents
- 2.2. Brief recount of involvement with the project (duration, occupation, charge)

### **3. Testing awareness of the Project**

- 3.1. How familiar are you with the objectives and activities of the Project?
- 3.2. If not, why?

### **4. Synergies with other similar initiatives**

- 4.1. Are you familiar with other similar DIPECHO projects and/or initiatives of the EU/UN Agencies?
- 4.2. Are there synergies with other similar initiatives? What are the benefits of such synergies? Challenges?
- 4.3. What can be done to improve and make better use of these synergies?

### **5. Project Overview and Relevance**

- 5.1. How would you describe challenges affecting your region/country as related to project objectives and focus?
- 5.2. Have the challenges remained the same? Changed?
- 5.3. How does the project contribute to addressing these challenges?
- 5.4. How is your institution involved in and contributing to the project work?
- 5.5. How is your institution benefitting from the project?

### **6. Specific Relevance to Stakeholder**

- 6.1. Has the project been relevant to address the constraints of your institution/community? In what way? If not, why?

### **7. Results and deliverables**

- 7.1. Has the progress towards objectives been steady and positive?
- 7.2. Is the project work advancing as planned?
- 7.3. Has the project been achieving planned results? Producing deliverables?

- 7.4. Has the project been innovative and produced innovative interventions/products?
- 7.5. Has the project encountered implementation challenges? How were these addressed?

## **8. Project Management and Governance**

- 8.1. Has the governance structure been adequate and effective?
- 8.2. Have the coordination arrangements been adequate and effective?
- 8.3. Has the inter-institutional communication been adequate and effective?
- 8.4. What have been the key management/operational/governance/communication challenges? Strengths?

## **9. Project Efficiency**

- 9.1. Have the financial resources been sufficient to achieve the results and produce deliverables?
- 9.2. Have the human and technical resources been adequate and sufficient?
- 9.3. Have the operational and logistical arrangements been adequate?
- 9.4. Have the M&E mechanisms and tools been adequate and efficient?
- 9.5. Have there been challenges in terms of timely delivery of the results? delays?

## **10. Communication and Visibility**

- 10.1. Has the project advanced the implementation of its Communication Strategy?
- 10.2. Has the project achieved visibility among stakeholders and beneficiaries?
- 10.3. Could you provide examples/stories?

## **11. Partnerships and Resource Mobilization**

- 11.1. Has the project been successful in forging strategic partnerships?
- 11.2. Has there been new agreements, commitments with new partners?
- 11.3. Have there been new financial commitments expressed?
- 11.4. Have there been challenges with the existing partnerships?

## **12. Knowledge and Innovation**

- 12.1. Is the project contributing to generating knowledge and innovative practices?
- 12.2. Are the project knowledge products relevant and of quality?

## **13. Gender and vulnerability**

- 13.1. Did the project address gender equality? Interests and needs of vulnerable groups?
- 13.2. How does the project affect women and girls and other vulnerable groups?
- 13.3. What would be long-term benefits of the project work for women and girls and other vulnerable groups?

#### **14.Potential Impact and Sustainability**

- 14.1. Has the project had positive effects? In what way?
- 14.2. Has the project addressed the initial challenges? If not, why? If yes, in what way?
- 14.3. What are the remaining gaps/constraints that have not been addressed?
- 14.4. Will the project be able to address them?
- 14.5. Is the project work likely to have a positive long-term impact? In what way? If not, why?
- 14.6. Are the project results and work likely to be sustainable after Project completion? How? If not, why?
- 14.7. What are the key challenges to project sustainability and impact?
- 14.8. What are the ways to address these challenges and increase the likeliness of sustainability and impact?

#### **15.Lessons Learned**

- 15.1. What have been the most important lessons learned to date?
- 15.2. Are these lessons applicable for other regions? How?
- 15.3. What has/have been the projects' major strengths? Weaknesses?

#### **16.Recommendations and comments**

- 16.1. What are your overall recommendations for future? (related to EWS specifically or DRR challenges in general?)
- 16.2. Would you like to add your observations and/or suggestions?

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#### Annex 5. Knowledge Products

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Attached separately

#### Annex 6. Survey results Spanish-speaking Caribbean

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Attached separately

#### Annex 7. Survey results English-speaking Caribbean

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Attached separately

