

**ASSOCIATION OF CARIBBEAN STATES (ACS)**

20<sup>th</sup> MEETING OF THE SPECIAL COMMITTEE ON DISASTER RISK REDUCTION  
Port of Spain, Trinidad-and-Tobago, 22<sup>nd</sup>-23<sup>rd</sup> November, 2012



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# STRENGTHENING HYDROMETEOROLOGICAL OPERATIONS AND SERVICES IN THE CARIBBEAN SIDS (SHOCS)

Phase I 2010-2012



## Partners

- Association of Caribbean States (ACS)
- Finnish Meteorological Institute (FMI)

## Funding and Governance

- Ministry for Foreign Affairs of Finland
- Institutional Cooperation Instrument (ICI)

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# Beneficiaries and stakeholders



## Primary Stakeholders: CMO, CIMH, WMO, CDEMA

The local stakeholders are the various organizations within the SIDS involved with MHEWS and DRR, such as Rescue units, NGO's, schools, women's groups and community focal points.



## **SHOCS II logistics in brief:**

- Funding mechanism:**  
**Institutional Capacity building Instrument (ICI)**
- Duration: Sep 2010 - Dec 2012**
- Funding Agency:**  
**Ministry for Foreign Affairs of Finland**
- Budget: Million Euros**



# Project Objectives

## Short term:

- ▶ Enhanced capacity of ACS on the strategic planning of the entire process of Disaster Risk Reduction
- ▶ Enhanced capacity of the NMHSs and DRR agencies to provide services for safety and preparedness against natural hazards.

## Long term:

- ▶ The Caribbean societies are better prepared for adverse effects of natural disasters and harmful impacts of climate change



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# 1<sup>st</sup> Result of SHOCS:

- **Enhanced know-how on Multi-hazard Early Warning Systems and Disaster Risk Reduction. Support to participation of SIDS in MHEWS- DRR related regional workshops.**
- **26 Out of 34 participants from the Caribbean Region were supported by SHOCS**

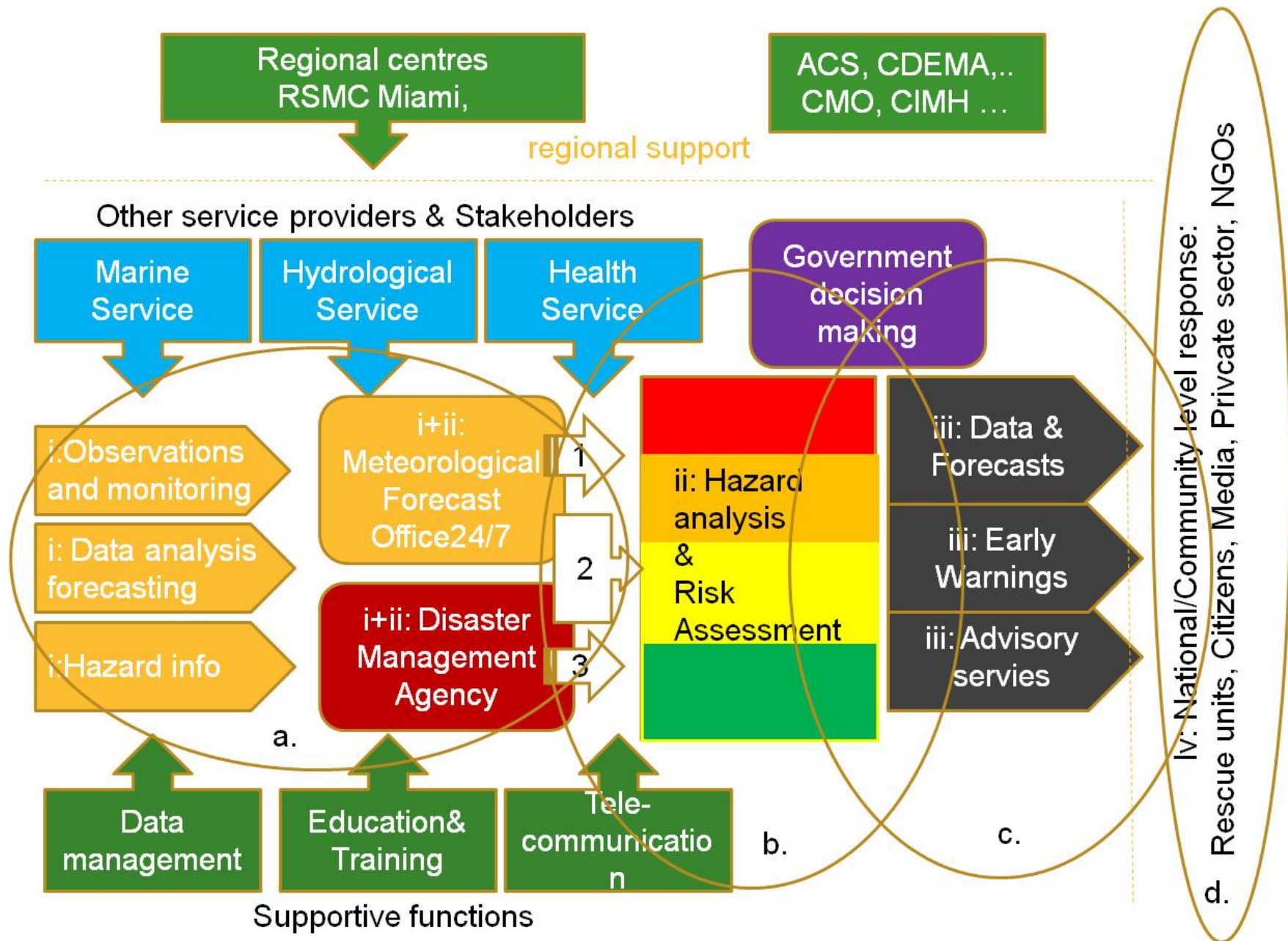


– WMO MHEWS Technical workshop Barbados 2010

06/12/2012 ACS SC-DRR meetings



# The MHEWS – DRR Process



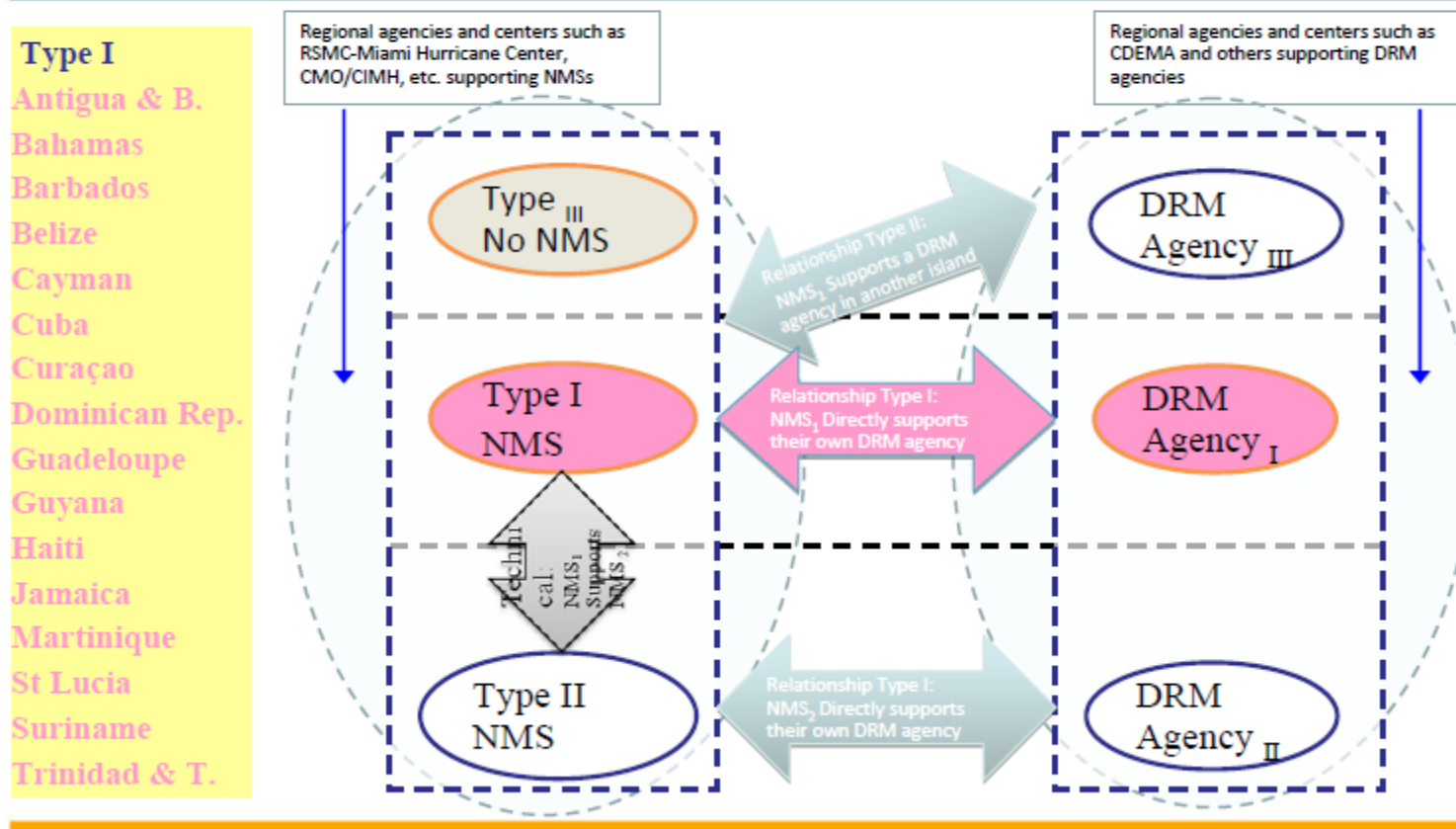




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## Complex relationships between Disaster Management Agencies and Meteorological Services





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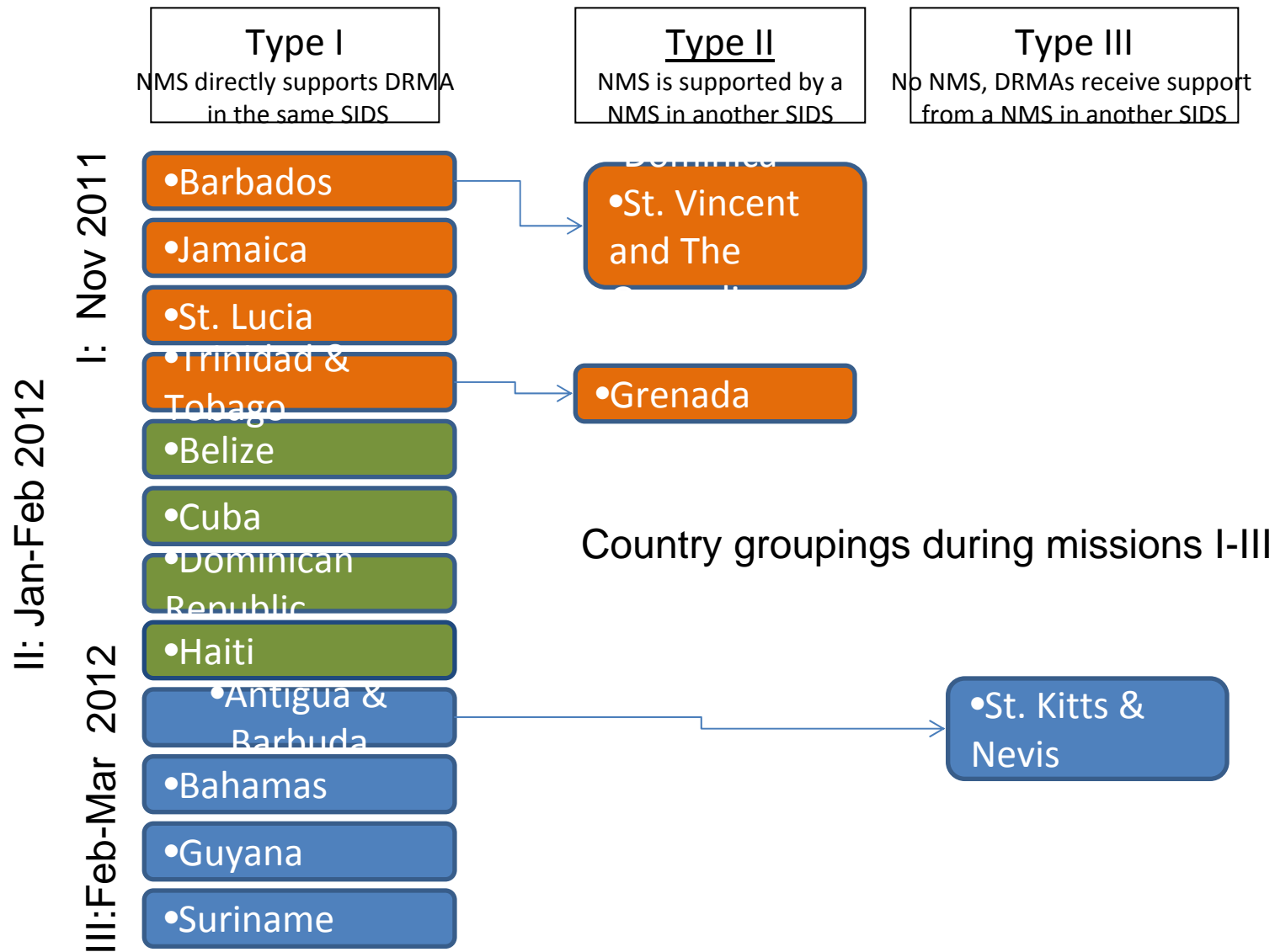


## 2<sup>nd</sup> Result of SHOCS:

- Capacity assessment on future needs of development of MHEWS and DRR including 16 SIDS in Dec 2011 – March 2012.
- Participation from the NMHS, DMA and related regional and local organizations.
- 16 country reports
- 3 mission reports
- 1 Summary report.



# Round tour through SIDS





# Major themes of the Assessment

- i. Observation, hazard detection, monitoring and forecasting**
- ii. Incorporating risk information in emergency planning and warning messages**
- iii. Dissemination and Communication of risk information and early warnings**
- iv. National and community level response to early warnings**



# Priority needs identified

- Strengthening capacity for MHEWS and DRR to build the institutional capacity
- **Strengthening methods and technical resources to enhance hazard detection, monitoring and forecasting**
- Strengthening capacity for communicating watches, warnings and advisories
- **Political recognition and legislation for MHEWS and DRR**
- Training in basic skills in meteorology and disaster management
- **Enhancing methods and techniques to disseminate watches, warnings and advisories**



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**Standardised communications platform with standardized operating procedures**

# **RESULTS OF ASSESSMENT**

## ***Regional Priorities***

**Strengthen capacity of the SRC to provide 24-hours-a-day real time information**

**harmonized colour-coded visualization system for weather related alerts indicating areas of elevated risk**

**Training in the principles of Quality Management and Result Based Management**

**Establish performance indicators and a Caribbean-wide auditing process for QMS certified agencies.**





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## **3<sup>rd</sup> Result of SHOCS:**

**2<sup>nd</sup> SHOCS QMS Workshop  
Rodney Bay, St. Lucia  
5–9 Dec 2011**



**1<sup>st</sup> SHOCS QMS Workshop  
Bridgetown, Barbados  
9–13 May 2011**



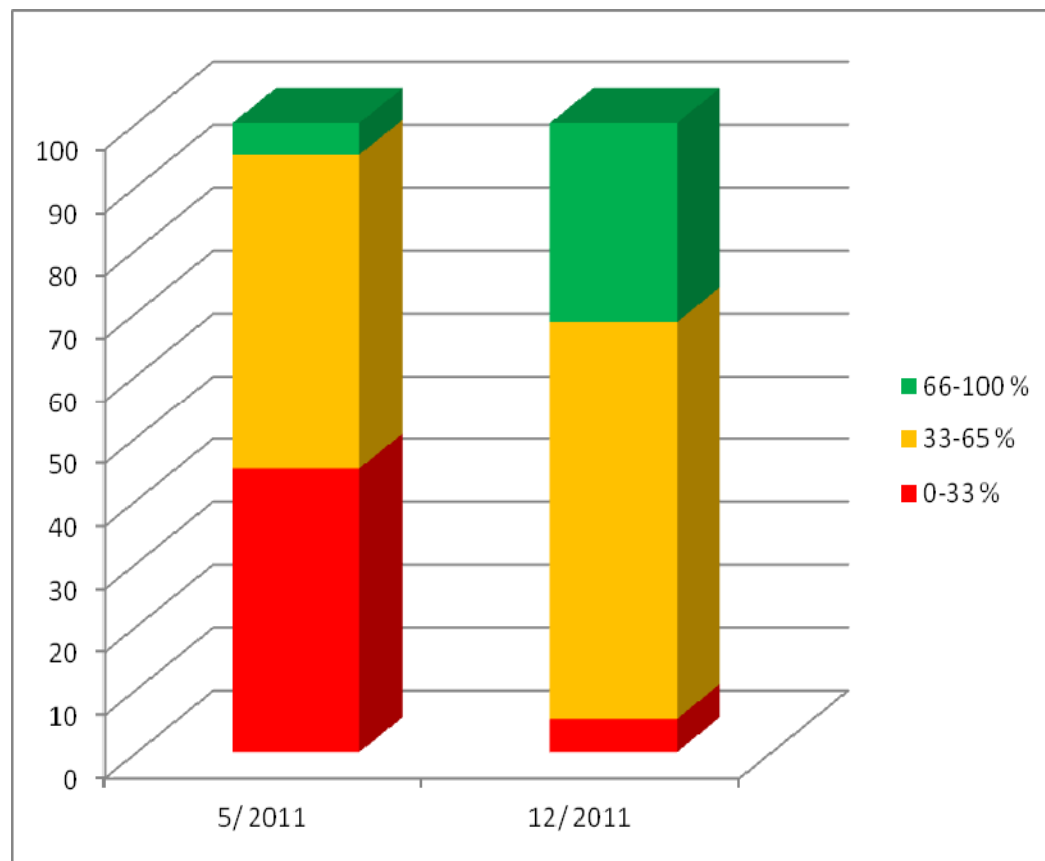
Country	4.1 General requirements	4.2.1 Documentation general	4.2.2 Quality manual	4.2.3 Control of documents	4.2.4 Control of records	5.1 Management commitment	5.2 Customer focus	5.3 Quality policy	5.4.1 Quality objectives	5.4.2 Quality management system planning	5.5.1 Responsibility and authority	5.5.3 Internal communication	5.6 MANAGEMENT REVIEW	6.1 Provision of resources	6.2 HUMAN RESOURCES	6.3 INFRASTRUCTURE	6.4 Work environment	7.1 Planning of product realization	7.2.1 Determination of requirements related to the product	7.2.2 Review of requirements related to the product	7.2.3 Customer communication	7.3 DESIGN AND DEVELOPMENT	7.4 PURCHASING	7.5.1 Control of production and service provision	7.5.2 Validation of processes
Anguilla	Not participated in the 2nd workshop																								
Antigua & Barbuda	70	70	90	90	90	80	70	100	95	n/a	100	50	0	n/a	90	60	60	90	90	70	80	n/a	80	70	
Aruba	40	60	80	70	100	100	30	80	90	100	100	100	70	100	100	100	100	80	100	90	100	90	90	20	
Bahamas	60	70	20	50	90	80	80	80	90	100	70	80	10	100	70	100	100	100	80	60	80	n/a	0	50	
Barbados	50	40	20	70	70	50	70	90	90	50	70	80	20	80	90	100	100	50	90	50	50	0	0	0	
Belize	30	20	40	30	80	70	80	50	80	70	70	40	20	60	60	100	100	70	70	50	80	20	30	50	
British Virgin Islands	70	70	70	100	100	95	60	70	95	100	50	100	90	100	90	100	100	100	60	20	80	50	70	70	
Cayman Islands	80	90	80	60	50	40	40	70	90	90	90	50	10	100	70	60	80	80	70	60	10	n/a	30	100	
Curaçao	70	80	100	90	100	90	70	80	60	50	90	90	50	100	100	100	70	60	70	100	70	50	50	50	
Cuba	80	60	55	40	40	75	85	85	60	80	85	90	50	70	95	95	95	70	75	75	90	80	95	85	
Dominica	40	50	20	20	70	60	70	70	40	30	50	50	40	60	90	60	60	40	30	40	40	30	10	20	
Dominican Republic	70	90	70	70	80	90	90	80	90	90	80	80	60	70	80	80	80	60	70	70	70	70	70	80	
Grenada	40	50	10	60	60	10	70	100	100	20	80	50	30	60	80	60	70	40	75	70	50	30	90	60	
Guyana	Not participated in the 2nd workshop																								
Jamaica	30	0	0	0	0	20	0	0	0	0	100	70	0	40	70	30	80	20	40	n/a	30	n/a	80	0	
St Kitts & Nevis	20	60	30	30	90	40	30	60	80	60	20	30	30	60	60	50	90	30	80	30	50	n/a	40	70	
St Lucia	50	60	20	60	90	90	80	100	90	90	40	80	40	90	80	80	90	60	90	90	80	0	20	0	
St Maarten	30	30	30	70	50	50	60	40	40	40	70	60	40	60	60	80	80	50	60	60	70	60	70	70	
St Vincent & Grenadines	100	90	90	60	100	80	60	60	90	100	100	60	60	100	50	100	100	50	100	50	100	n/a	50	50	
Suriname	80	80	70	80	90	90	60	100	80	80	100	60	70	80	80	80	70	80	80	80	60	n/a	60	80	
Trinidad & Tobago	not available (n/a)																								
Average	56	59	50	58	75	67	61	73	76	68	76	68	38	78	79	78	84	63	76	62	64	45	52	51	



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- **Training to NMHSs Quality Managers for developing QMS for Aeronautical Services as required by ICAO to be in place by November 2012. Two inter-linked training (May and Dec 2011) with 21 Caribbean SIDS NHMSs.**



Level of QMS implementation	Workshop		
	5/ 2011	12/ 2011	
0-33 %	45	5	%
33-65 %	50	63	%
66-100 %	5	32	%
	100	100	





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## **Coordinating team of Finnish Government:**

- ❖ Mikko Pyhälä, MFA
- ❖ Hannele Halmeranta , MFA

## **Composition of the Project Board:**

- ❖ Jeremy Collymore, CDEMA (Chair)
- ❖ Luis Andrade Falla/Alfonso Muñera, ACS
- ❖ Eduardo Gonzalez, ACS
- ❖ Oscar Arango, WMO
- ❖ Tyrone Sutherland, CMO
- ❖ Harri Pietarila, FMI



## **Project team:**

- ❖ **Mathieu Fontanaud, ACS (DRR expert)**
- ❖ **Sandra Fonseca, ACS (Project Assistant)**
- ❖ **Salome Buglass, ACS (Project Assistant)**
- ❖ **Heikki Juntti, FMI (QMS trainer)**
- ❖ **Alberto Blanco, FMI (QMS trainer)**
- ❖ **Riikka Pusa, FMI (Project Assistant)**
- ❖ **Minna-Kristiina Sassi, FMI (Project Assistant)**
- ❖ **Hanna Manninen, FMI (Project Assistant)**



## **Consulting Experts:**

- ❖ **Herbert Puempel, WMO (QMS trainer)**
- ❖ **Alain Boisvert, MSC (QMS trainer)**
- ❖ **Vernese Inniss, Ecoisle Inc. (Feasibility study consultant)**

## **Special thanks to**

- ❖ **Patricia Phillip, ACS, for organization of this event'!**
- ❖ **José Rubiera, INSMET, for presenting the QMS results in the ACS SC DRR Bogota meeting.**