World Meteorological Organization
Working together in weather, climate and water

WMO

Technical Cooperation Workshop for Development of the Caribbean Regional Cooperation Programme in Multi-Hazard Early Warning System

Working Group B

Session 4: Outcomes

Risk Analysis, Data management and Exchange Issues to support DRM and EWS with Multi-Hazard Approach

Country/Territory /Agency Represented in Working Group B

Countries /Territories

- Barbados
- Dominica
- Grenada
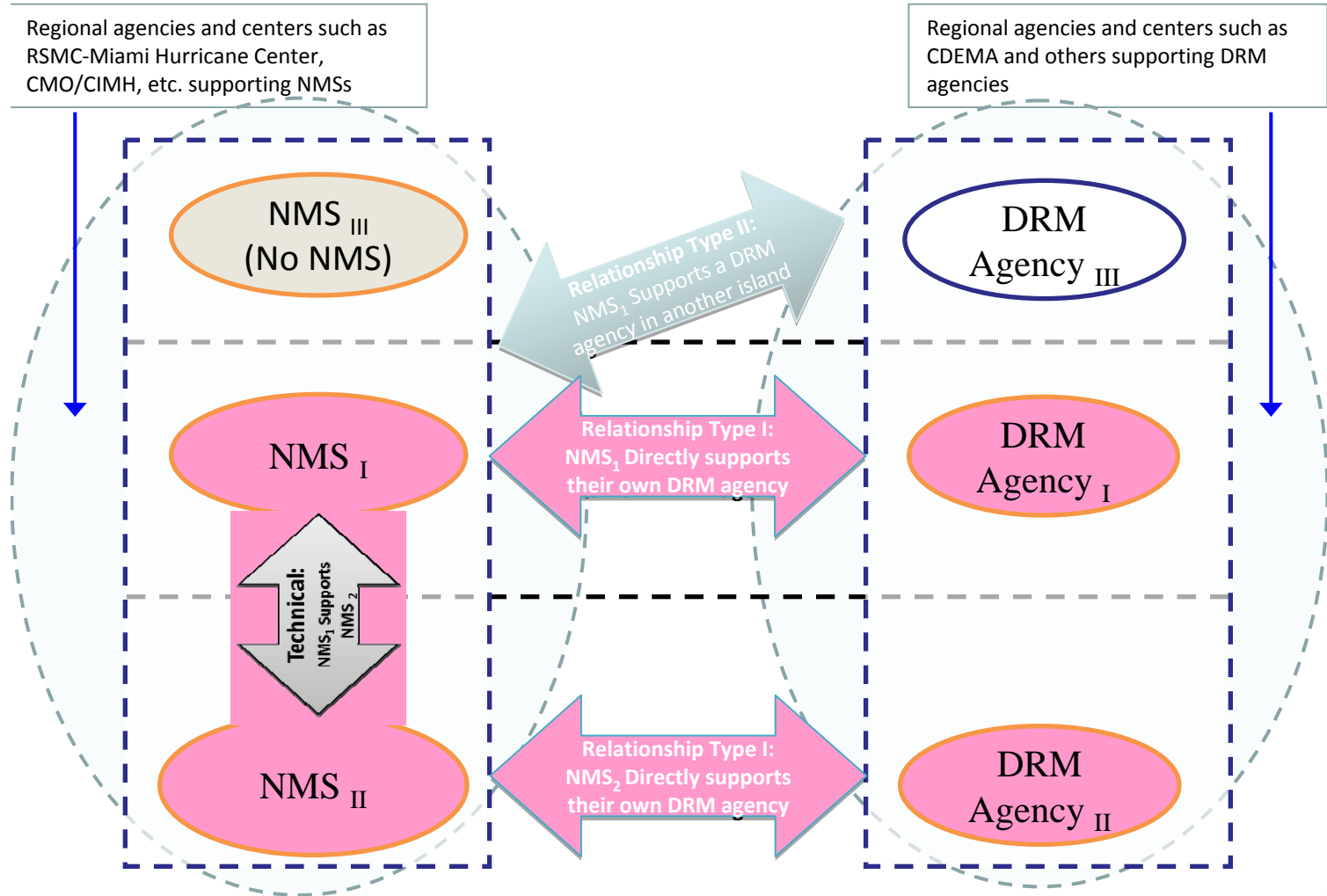- St Vincent and the Grenadines
- Trinidad and Tobago

Agencies

- CARIB-HYCOS
- CCRIF
- CIMH
- JICA
- USA COMET
- World Bank

Different relationships between Disaster Management Agencies and Meteorological Services

Antigua & B.
Bahamas
Barbados
Belize
Cayman
Cuba
Curaçao
Dominican Rep.
Guadeloupe
Guyana
Haiti
Jamaica
Martinique
St Lucia
Suriname
Trinidad & T.
Aruba
Dominica
Grenada
St Marteen
St Vincent & G.

Regional agencies and centers such as RSMC-Miami Hurricane Center, CMO/CIMH, etc. supporting NMSs

Regional agencies and centers such as CDEMA and others supporting DRM agencies

NMS $_{III}$ (No NMS)

DRM Agency $_{III}$

Relationship Type II: NMS$_1$ Supports a DRM agency in another island

NMS $_I$

Relationship Type I: NMS$_1$ Directly supports their own DRM agency

DRM Agency $_I$

Technical: NMS$_1$ Supports NMS$_2$

NMS $_{II}$

Relationship Type I: NMS$_2$ Directly supports their own DRM agency

DRM Agency $_{II}$

Needs and Gaps

- Need for a integrated approach at the national level that involves all stakeholders, defines their roles and relationships and defines their data policies (e.g. water resource management, real-time data accessibility)

- Need for a more representative and robust observation network that includes:

  - Adequate spatial and temporal coverage

  - Sustainability plan (e.g. maintenance plans, replacement parts, quality control methods, and training)

Needs and Gaps (continued)

- Lack of coordination of observation data projects (multiple projects with differing standards and stakeholders)

- Lack of a Caribbean-wide centralized meteorological data collection/repository (CIMH is limited to CMO members)

- Need to build capacity to integrate of different systems to produce products such as hazard maps, forecast maps, warning maps, atlases, etc.

- Need for institutionalizing arrangements (MoUs, SOPs, legal frameworks) for data, product and methodologies sharing (e.g. observation data, model data and products, Climate data)

- Need for filling in the historical observation gaps through data rescue and meta data

Needs and Gaps (continued)

- Need for upgrading IT infrastructure (hardware & software) for data management, collection of data, hazard analysis and model analysis (downscaling), etc.

- Need for a national structure for development of products that include the integration of vulnerability data and hazard data

- Need for pooling of resources at the regional level (center of excellence) for high level processing (e.g. hazard modeling) of regional and national data

Needs and Gaps (continued)

- Need for capacity training on:

  – Data management

  – Equipment maintenance

  – Building historical databases (data rescue)

  – Methodologies for implementation of metadata

  – Product development

  – Utilization of modeling outputs

  – Integration of observation data (radar, satellite, surface and upper-air observations, etc)

Needs and Gaps (continued)

- Need for a list of resources that are available in the region including:

  - Modeling

  - Training

  - Product development

with regard to hazard analysis

- Access to quality controlled historical data (data rescue capacities) including metadata and hazard databases

- Understanding of data needed for effective hazard analysis

Thank You