## Strengthening Institutional Partnerships and Working Arrangement of NMHS for enhanced and user-driven Service Delivery for DRR

The implementation of the Hyogo Framework for Action (HFA) by national governments is leading to changes in national DRR policies, legal and institutional frameworks, with implications on the roles, responsibilities and new working arrangements for the National Meteorological and Hydrological Services (NMHSs). These changes provide opportunities such as increased recognition of the NMHSs by their governments and stakeholders, which could result in strengthened partnerships and increased resources. However, NMHSs face increasing demands and liabilities related to the provision of products and services to larger and more diverse groups of DRR stakeholders (e.g., government authorities, public and private sectors, NGOs, general public and media, etc.) some of whom have direct responsibilities for DRR decision-making. To meet these new challenges, the implementation of the DRR Work Plan aims to facilitate better alignment of the activities of WMO constituent bodies and global operational network as well as strategic partners to assist NMHSs to implement a coordinated and comprehensive approach in development and delivery of weather, hydrological and climate services to the DRR stakeholders. These coordinated efforts are underpinned by national DRR policies and legislation, user requirements and partnerships with the target DRR users, coordination with other national technical agencies and the global and regional operational network through the Global Forecasting and Data Processing System (GDPFS) including Global Producing Centres (GPCs), Regional Specialized Meteorological Centers (RSMCs) and Regional Climate Centers (RCCs). Specifically, there is need for comprehensive set of guidelines, manuals and standards and related capacity development projects to support the NMHSs to:

- Engage effectively in the National DRR governance and institutional frameworks to ensure that role, mandates and responsibilities are clearly reflected (i.e., policy, legislation, legal frameworks, institutional coordination and working arrangements for various aspects of DRR and DRM at national to local levels);
- (b) Identify, prioritize and establish institutional partnerships and service delivery agreements with national DRR and DRM user community and economic sectors (e.g., energy, transport, health, agriculture and food security, etc) engaged and responsible for implementation of DRR and DRM activities such as risk analysis, Multi-Hazard Early Warning Systems (MHEWS), sectoral risk management, disaster risk financing and transfer (DRR users);
- (c) Develop and deliver core and specialized products and services (e.g., data, forecasts, analysis, technical advices and a range of other value-added products and services) defined by the requirements of the "DRR users" for DRR decision support (e.g., hazard/ risk analysis, multi-hazard EWS, sectoral risk management and disaster risk financing and risk transfer) in a cost-effective, systematic and sustainable manner;
- Ensure that core operational capacities (e.g., observing networks, forecasting systems, telecommunication systems, data management systems, human resources, etc.) are built upon the principles of Quality Management Systems (QMS) to support product and service development and delivery;

- (e) Establish partnership agreements with other national technical agencies (e.g., hydrological services, ocean services, etc.) and with global and regional specialized centers (e.g. Global Producing Centres (GPCs), Regional Specialized Meteorological Centres (RSMCs), Regional Climate Centres (RCCs), Tsunami Watch Centres, etc.), with standard operating procedures;
- (f) Engage in regional and global efforts for to ensure harmonization, interoperability and development of risk information for large scale and transboundary hazards, through strengthened regional and global cooperation.

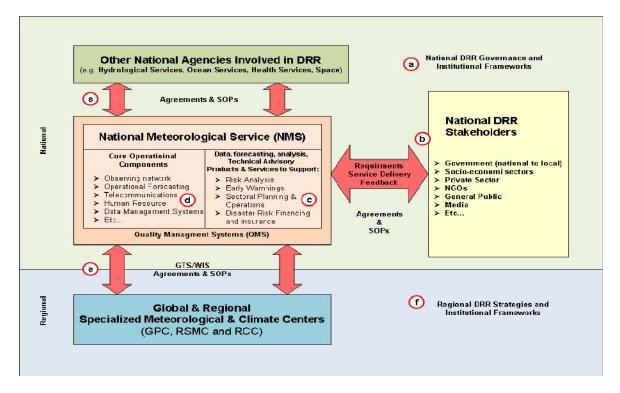


Figure 1: Schematic representation of linkages between meteorological services and DRR stakeholders