

Activity Area -1 Impact based end-to-end early-warning systems (EWS) for flood forecasting

outcome	<i>Impact based end-to-end early-warning systems (EWS) for flood forecasting in the context of a broader integrated flood management strategy implemented by Members.</i>
	<i>Public, communities and businesses have enhanced access to and better capacity to react to official national hydrological forecasts and warnings globally and locally.</i>
measure of success	1. Number of Members having Multi-hazard Early Warning System set up for floods (at least 80 % of Members declared substantial or comprehensive achievement for all 4 major components of EWS for floods in Sendai Monitor of UNDRR). 2. Number of Members providing their flood warnings via GMAS (at least 50 % of Members doing so)

[illegible]

output	activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
Risks	Change in overall political and societal priorities e.g. due to COVID-19 pandemic results in decreased involvement in water-related agenda Lack of alignment with other activities in the field of Water (e.g. UNESCO-IHP) leading to competition for attention of governments. Technological game changer undermines the importance and the role of national services in flood forecasting												
Framework is developed for evaluation of gaps and needs of National flood forecasting and early warning systems	Assessment Guidelines web based tool and community	B.2.1	further development and implementation of the assessment guidelines as a tool for self- assessment (or assessment by expert teams through WMO), to identify capabilities and needs in national capabilities to deliver flood forecasting services and warnings; implementation of a web based tool, based on simplified assessment guidelines, to identify national capabilities and needs	1	1.3	web tool available on WMO website; assessment teams available for deployment once request received through the HelpDesk; repository of assessed NMHSS.	2023	SC-HYD (to finalize the Assessment Guidelines), Secretariat (to manage requests and coordinate the requested expertise)	Resources to respond to the Members requests will have to be mobilized/al located on a case-by-case basis. Possibility to provide RAS (reimbursable advisory services) for the implementation of assessments	experts to TCs, Support Base Partners	checklist for MHEWS		Members' gaps and needs will also be identified through the Hydro Assembly and the RA Hydrological Fora
Assumptions													
Risks	None												
Increased exchange of knowledge and technical expertise in flood forecasting among Members	Community of Practice on End-to-End Early Warning Systems for Flood Forecasting, including guidance on emerging technologies and services for data acquisition and analysis	B.3.1	Developing mechanisms on implementing recommended practices via team of experts to support knowledge exchange. This will be complemented by a repository of capacity building materials (guidance, e-learning); role of the new technologies to address geographical constraints or insufficient local resources	1				SERCOM	Technical platform for the CoP (webpage, discussion for a, wiki, social network), training materials and targeted workshops	UCAR			guidance on e.g. selection of hydrological/ hydraulic models, on developing holistic flood intelligence systems, on selection and appropriate use of different weather products, on ensemble flood prediction methods and verification, or on network design with respect to floods

[illegible]

output	activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
Increased availability and international exchange of hydro-meteorological data for operational flood forecasting and early warning, and enhanced international cooperation in flood management especially for transboundary basins on free and unrestricted basis.	See cross-cutting issues	B.5	See cross-cutting issues Area A.10.1, A.10.2, A.10.3, A.10.4										
Enhanced resource mobilization (expertise, financial, partnership) for capacity building, technical assistance, training of personnel and sustainability of E2E MHEWS	Project proposals development support	B.6. 1.	See A.7.1										
Flood related data and products with global and regional coverage are available for the use at national scale by Members	GDPFS - hydrological centers including regional forecasting centers/systems developed	B.7. 1	Establishment of RSMC centers with function in the field of operation flood forecasting to support Members with global and regional product and verification.	1		At least 2 specialized centers operational by 2024	2024	SERCOM, INFCOM		Members, RSMC	GDPFS, HYDROS OS, RCOFS		
	inventory of world- wide and regional free and public data and products for Flood forecasting; and inventory of international interoperable models and platforms	B.7. 2	Develop an update the inventory of state of the art tools that are freely available for use in flood forecasting or products that might be used at national and local scale to	1		Inventory accessible for NHSS	2025	SERCOM		Members, Academia ,	GDPFS, RCOFS, NMHSS		

output	activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
			support flood forecasting activities (such as DEWETRA, Glofas, efas, DHI-UNEP, Sustainable FFGS} as an entry reference page										
Assumptions													
Risks	Lack of candidates to become centers operating under GDPFS rules New centers develop outside the umbrella of GDPFS (including in private sector) that undermines the idea of GDPFS Lack of acceptance of the GDPFS hydrology structure by NHSS												
Increased Members' capacities to deliver and communicate to the public and raising the awareness	8.1 collection of success stories, challenges and needs	B.8. 1	includes case studies on CAP application to hydrological hazards, communication of uncertainty	1		document published	2025	SERCO, INFCOM		UNDRR, MeteoAL ARM (EUMETNET), NMHSS,	public weather services programme. GMAS		
	8.2 Guidelines on Flood Risk assessment/mapping and "Impact Based Forecasting"	B.8. 2	Better understanding of flood hazard and flood risk and their changes within the year, season, day as well as long-term trends based on concepts used e.g. in EU Floods Directive etc.	1		Document published	2025	SERCOM		UNDRR, EU	PWS		
	8.3 Enhanced national consultations/communication between forecasters and users	B.8. 3	i) guidelines based on good practices developed and implemented ii) compilation of list of requirements from users and their decisions /expectations and how to research on these (guide) iii) catalog of case studies of product and service development as well as marketing strategies for customers and development of process/check list, methodology to	1		Documents published	2025	SERCOM					

[illegible]