

Activity Area -0 National Hydrological Services operations

outcome	<p>National Hydrological Services operations are sustainable, visible for the society and governments, and benefits provided are recognized and valued.</p> <p>Financing schemes of hydrological services are improved to ensure sustainability of operation and attractiveness for professional staff.</p>
measure of success	Number of Members reporting through Country profile database sustainable financial (budgeting) situation

output	Activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
Increased presentation/ communication understanding of value proposition, benefits and, risk analysis and value of hydrological services to foster understanding by ministries and governments	High level RAs fora	A.1 .1	organization of HL forum at each RA session to involve politicians and better describe value and benefits provided by the NMHSs in decreasing risks of hydrometeorological disasters	1,2, 3,4, 5,6, 7,8	1.3, 4.1, 4.2, 5.1	Number of governments represented at HL forum (20 % of countries participated)	regularly starting from 2021	RAs		Member, WB, UNDP	Regional Programme , Regional offices		
	Hydrological Assembly	A.1 .2	Organization presentation of water and climate leaders in CG-ext Present Declaration and to broaden hydrological community to participate in WMO work at Cg-ext			Number of relevant high level participants	Next Cg-19?						
	Creation of communication materials for NHSs towards Governments	A.1 .3	Development easy to digest presentations of benchmarking and success stories demonstrating benefits of NMHSs and their services	1,2, 3,4, 5,6, 7,8	1.3, 4.1, 4.2, 5.1	NHSs use materials for national argumentation	2023 and updating biannually	SG		WB			

output	Activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
	<i>Emphasize the convenience of linking flood and drought management plans to local/national development policies</i>	A.1.4		1, 2, 3,									
	<i>Conceptualising of a toolkit to evaluate service quality and include for self-guided benchmarking in the CPDB</i>	A.1.5		1,2, 3,4, 5,6, 7,8	1.3, 4.1, 4.2, 5.1	<i>Analysis available on CPDB continuously in support of strategic planning of NHSs</i>	2023	HCP, Secretariat		NHSs			
	<i>Using the water and climate leaders group and the coalition to transport effective WMO messaging towards governments and ministries.</i>	A.1.6	<i>Proper communication materials that can be used by the coalition but also at national level</i>	1,2, 3,4, 5,6, 7,8	1.3, 4.1, 4.2, 5.1	???		SG		Members Governments, UN			
Assumptions	- <i>Water and hydrometeorological disasters are considered to be priority for societal needs both in short term and long term political perspective.</i>												
Risks	<ul style="list-style-type: none"> - <i>Change in overall political and societal priorities e.g. due to COVID-19 pandemic results decrease the involvement of politicians in water-related agenda</i> - <i>Lack of alignment with other activities in the field of Water (e.g. UNESCO-IHP) leading to competition for attention of governments.</i> - <i>Technological game changer undermines the importance and the role of national services</i> 												
<i>Increased management skills of NHSs management (including middle and lower management) supports effectiveness and development of NHSs</i>	<i>Curriculum for top and middle management training</i>	A.2.1	<i>Similarly to basic instruction package for meteorology and hydrology, basic instruction package should be developed for management of NHSs (including description of skills needed in HR, operation, project management, strategy, finance, information marketing domains accommodated for a conditions of the NHSs)</i>	<i>cross-cutting</i>	1.3, 4.1, 4.2,	<i>Curriculum approved by Hydrological Assembly in 2023).</i>	2023	<i>CDP, in cooperation with HCP</i>		<i>UN System Staff College, UNOG</i>	<i>Capacity development programme</i>		

output	Activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
	E-learning training course(s) for management of NHSs developed	A.2 .2	E-learning courses are developed to enhance management skills of NHSs' staff (including HR, operation, project management, strategy, finance, information marketing domains accommodated for a conditions of the NHSs)	cross-cutting	1.3, 4.1, 4.2,	at least 50 representatives of NHSs participated to the e-learning course during 2025	2025	CDP, in cooperation with HCP		UN System Staff College, UNOG	Capacity development programme		
	Guidance on managing the NHSs	A.2 .3	Basic guidance on needed management skills for NHSs' staff (including HR, operation, project management, strategy, finance, information marketing domains accommodated for a conditions of the NHSs)	cross-cutting	1.3, 4.1, 4.2,	guidance published	2025	CDP, in cooperation with HCP		UN System Staff College, UNOG	Capacity development programme		
	Twinning projects targeted at management skills	A.2 .4	Twinning projects used for knowledge transfer among Members including management skills of the NHSs staff.	cross-cutting	1.3, 4.1, 4.2,	number of twinning projects that includes management skills training	2027	CDP, in cooperation with HCP		Members NHSs	Capacity development programme		
	Management TED talks programme	A.2 .5	Sharing experience through the TED talks format videos targeting on explanation basic management issues of NHSs and methods to cope with them etc.	cross-cutting	1.3, 4.1, 4.2,	25 videos by 25		HCP		UN System Staff College, UNOG, Members NHSs			
Assumptions	<ul style="list-style-type: none"> - QMF-H remains top priority activity supporting hydrology in WMO - Members recognize the importance of management and governance at institutional level 												
Risks	<ul style="list-style-type: none"> - Change in overall political and societal priorities e.g. due to COVID-19 pandemic results in decrease the importance of water-related agenda - NHSs do not recognize the increase of management skills to be an important factor in operation and development of services (due to preference of operation only or internal cultural or other external conditions). 												

output	Activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
<i>Enhanced regional cooperation, planning and implementation of NMHSs led activities</i>	<i>Regional Associations hydrological activities (e.g. HydroConference in RAVI) and support to other technical symposia organized at regional level</i>	<i>A.3 .1</i>	<i>conference to promote knowledge sharing</i>					<i>RAs, HCP</i>					
<i>Assumptions</i>	<i>Reform of regional associations working structure creates a reliable and viable platform for hydrologists to meet and cooperate on operational hydrology issues.</i>												
<i>Risks</i>	<i>Hydrology is lost in transition – losing attractiveness for hydrologists to engage in WMO for efficient networking with community at regional level. Creation/evolvment of parallel regional platforms of cooperation in hydrology not connected to the WMO that prove to be more efficient and reliable.</i>												
<i>Enhanced customer orientation and better marketing skills generates better services and products with higher added value.</i>	<i>E-learning training course(s) on marketing</i>	<i>A.4 .1</i>	<i>E-learning courses are developed to enhance management skills of NHSSs' staff in marketing accommodated for a conditions of the NHSSs)</i>	<i>cross-cutting</i>	<i>1.3, 4.1, 4.2,</i>	<i>at least 30 representatives of NHSSs participated to the e-learning course during 2025</i>	<i>2025</i>	<i>CDP, in cooperation with HCP</i>		<i>UN System Staff College, UNOG</i>	<i>Capacity development programme</i>		<i>as a part of Curriculum for top and middle management training</i>
	<i>Management TED talks on marketing and customer orientation</i>	<i>A.4 .2</i>	<i>Sharing experience through the TED talks format videos targeting on explanation basic marketing principles and methods to cope with them etc.</i>	<i>cross-cutting</i>	<i>1.3, 4.1, 4.2,</i>	<i>7 videos available</i>	<i>2025</i>	<i>HCP</i>		<i>UN System Staff College, UNOG, Members' NHSS</i>			<i>as part of Management TED talks programme</i>
	<i>Catalog of case studies of product and service development as well as marketing strategies for customers and development of process/check list, methodology to support strategic service planning of NMHSs including catalogue of</i>	<i>A.4 .3</i>	<i>Demonstration of good practice in development of customer/user-oriented products and services</i>	<i>cross-cutting</i>	<i>1.3, 4.1, 4.2,</i>	<i>catalog made available</i>	<i>2025</i>	<i>HCP</i>			<i>UN System Staff College, UNOG</i>		

output	Activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
	products and services in response to customer requirements												
Assumptions	QMF-H remains top priority activity supporting hydrology in WMO Members recognize the importance of management and customer focus at institutional level												
Risks	Change in overall political and societal priorities e.g. due to COVID-19 pandemic results in decrease the importance of water-related agenda NHSs do not recognize the increase of management skills to be an important factor in operation and development of services (due to preference of operation only or internal cultural or other external conditions). Change of the market (e.g. due to continued globalization and new competitors entering the business)												
The end-users of hydrological information/data have a clear understanding of what the data means and it's relative (un)certainty	Developing of unified communication standards for hydrological information	A.5 .1	Developing of unified communication standards for hydrological information based on definition of guidelines and regulatory material to ensure that communication is based on uptake requirements defined by end-users	cross-cutting		Guidelines available	2025	RB, SERCOM			HCP, CDP		From Research strategy
Assumptions	QMF-H remains top priority activity supporting hydrology in WMO Members recognize the importance of management and customer focus at institutional level												
Risks	Change of the market (e.g. due to continued globalization and new competitors entering the business) Change in overall political and societal priorities e.g. due to COVID-19 pandemic results in decrease the importance of water-related agenda												
Institution development plans and programmes of monitoring network development are in place and implemented taking into account the catalogue of	Guidance how to write a development plans for various aspects of NHSs' operation	A.6 .1	Guidance should support enhancement of managerial capabilities within NHSs, as such it provides general advice on strategy development and planning accommodated for the conditions of NHSs	cross-cutting	1.3, 4.1, 4.2,	guidance published	2025	HCP		UN System Staff College, UNOG	Capacity development programme		as a part of Curriculum for top and middle management training

output	Activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
products and services	E-learning training course(s) for management of NHSs	A.6.2	E-learning courses are developed to enhance management skills of NHSs' staff in strategic and operational planning and project development and management.	cross-cutting	1.3, 4.1, 4.2,	at least 30 representatives of NHSs participated to the e-learning course during 2025	2025	CDP, in cooperation with HCP		UN System Staff College, UNOG	Capacity development programme		as a part of Curriculum for top and middle management training
	NHS providers have the tools to plan and construct hydrological networks that can grow/adapt as needs and resources changes	A.6.3	Delivered by targeted research, guidelines on hydrological monitoring network design, implementation and maintenance are available.	cross-cutting		Guidelines published	2024	RB, INFCOM		UNESCO-IHP, IAHS, IAHR	HCP, HydroHub		From research strategy
Assumptions	QMF-H remains top priority activity supporting hydrology in WMO Members recognize the importance of management and customer focus at institutional level												
Risks	Change of the market (e.g. due to continued globalization and new competitors entering the business) Change in overall political and societal priorities e.g. due to COVID-19 pandemic results in decrease the importance of water-related agenda												
Enhanced resource mobilization (expertise, financial, partnership) for capacity building, technical assistance, training of personnel and sustainability of E2E MHEWS	Project proposals development support	A.7.1	Put in place a framework mechanism to sponsor development initiatives through Project Proposal development and provision of Reimbursable Advisory Services through e.g. the IFM HelpDesk			Number of projects developed	Review of progress by 2025	SG, HCP		WB, UNDP, UNECE, EU, USAid, GWP	APFM		
Assumptions													
Risks	Change in overall political and societal priorities e.g. due to COVID-19 pandemic results in decrease the importance of water-related agenda												

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Sustainable projects helps build capacities of NHSs	Capacity development project are coordinated to support achievement of long-term ambitions and sustainability	A.8 .1	SOFF, ????	cross-cutting	1.3, 4.1, 4.2,								
	Support of local production of monitoring equipment to enhance maintenance availability and reduce cost.	A.8 .2	HydroHUB	cross-cutting	1.3, 4.1, 4.2,								
	Support to twinning projects between national hydrological services	A.8 .3											
Assumptions													
Risks	Change in overall political and societal priorities e.g. due to COVID-19 pandemic results in decrease the importance of water-related agenda												
Effective and efficient, low-cost methods for hydrological observations are broadly available	Guidance on how to amplify the information through citizen science, proxy data, and innovation.	A.9 .1		cross-cutting		Guidance published	2025	RB, INFCOM		UNESCO-IHP, IAHS, IAHR	RAs, HCP, HydroHub		
	HydroHub Innovation hub will stimulate development and deployment of low-cost technologies for hydrometric monitoring.	A.9 .2	HydroHub Innovation platform	cross-cutting		Number of innovation calls of HydroHub that are successfully implemented at site	Regular review at each Cg/HA	INFCOM, RB		IAHS, IAHR	RAs, HCP, HydroHub		

output	Activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
Assumptions													
Risks	Replacement of technology of long-observing stations causes inhomogeneity in time series												

outcome	Increased sharing of hydro-meteorological data for operational hydrology on free and unrestricted basis across political border												
measure of success	Number of countries and number of stations registered in the Reference network and providing free access to data												

output	activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
Increased availability, national 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	Basic observation network – hydrology and cryosphere established	A.10.1	In the spirit of (and to support) Resolution 42 and its implementation a network of reference observations is established from which Members commit themselves to mandatory share the data - GBON hydrology and cryosphere data (snow melt floods, ice related flood risks)	1,2,3		At least 50 members registered their station to the network by 2024	Concept note 2022, implementation plan 2023, update of TR vol III, 2023	INFCOM		UNESCO, EU (Copernicus), UNEP	GBON, GRDC, IGRAC? HYDROLARE, GEMS, WWDI		

	WHOS - operational data exchange	A.10.2	WHOS develops as common platform for international sharing of operational data among Members.	1,2,3		At least 50 Members provides operational data through WHOS by 2025	2025 for review	INFCOM					
	Increased additional / voluntary data sharing including forecast products, Satellite data/products availability for flood forecasting	A.10.3	"Resolution 42" promotion in hydrology for forecast products. Further development of transboundary policy issues (Legal Paper on IFM, transboundary flood risk management) Demonstration project in selected basins built on WHOS	1				INFCOM, SERCOM, RAs		UNECE Water Convention			
	Statement on network design with respect to floods forecasting and management	A.10.4	Easy to understand advice on how to best design network for flood forecasting and warning purposes (location of gauges, reporting frequency etc.)			Statement presented	2023	INFCOM, SERCOM			HCP		
Assumptions		Resolution 42 on data policy adopted by Cg-2021, Members support development, maintenance and sustainability of hydrological networks including near-real-time data transmission.											
Risks		Increased completion with private sector due to changed data policies											

outcome	<i>Increased involvement of hydrological communities of Members in global activities of the WMO and enhanced benefits transfer to national scale services</i>
measure of success	<i>Number of hydrological advisers participating to Congress/Hydrological Assembly</i> <i>Number of hydrological advisers participating to RA sessions</i> <i>Number of representatives of NHSs acting as experts/members of Standing Committees and Study Groups</i> <i>Number of experts participating to Regional hydrological forums</i> <i>Number of hydrologist that received IMO prize</i>

output	activity	ID	description	LTA	SOP	success criteria	time frame	responsibility	resources	partners	linkages	MOA	comments
<i>Operational hydrology community at national scale knows how to access the global products, services, tools, activities and community of WMO</i>	<i>Entry point up to date catalog/directory available</i>	<i>A.11 .1</i>	<i>Catalog provides information, where to find relevant information and products generated by WMO and its community for use by NHSs</i>										
	<i>Motivation, benefits clearly described and understood</i>	<i>A.11 .2</i>											
<i>Assumptions</i>	<i>Hydrological community can affect the strategic and operational activities of the organization and contribute to the work of all bodies.</i> <i>All bodies are actively seeking for hydrological experts and requirements from hydrological community.</i>												
<i>Risks</i>	<i>Other UN organizations attracts better hydrological experts to be involved in activities seemed as meaningful</i> <i>Earth system approach doesn't provide balanced attention to issues of hydrology in all activities.</i>												