**TABLE 1 Progress update on WMO EW4All Scientific and Technical activities (organized along the functional value cycle)**

| **Item** | **Hazard Category** | **Implementation Tasks (and relevant SO and/or Technical Commission work programme number)** | **Status** | **Type of Activity** | **Constituent Body Lead** | **Secretariat Lead** | **Deliverables** | **Urgency** | **Timeline** | **Comment** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  **Global (and regional) observation of variables (Strategic Objective 2.1):** |  |
| 1 | Non-hazard specific/cross-cutting | 1.1 GBON implementation (INFCOM (2)) | Ongoing as planned | Capacity development projects, Monitoring | INFCOM | I/WIGOS | GBON statistics | High | 2024-2027 | [Compliance monitoring tool](https://gbon-compliance.wmo.int/) launched in 2024. |
| 1.2 Catalogue and analyse gaps of satellite products and applications (INFCOM (7) and (8), action plan Table 2)) | Ongoing as planned | Investigation | INFCOM | I/WIGOS | Catalogue | High | 2024-2025 | The gap analysis has been initiated by WMO Coordination Groups on Satellite Data Requirementsin various regions. |
| 1.3 Ensure Members have access to sufficient satellite data and products (INFCOM (8)) | Ongoing as planned | Liaison, training | INFCOM | I/WIGOS | Agreements, training | High | 2024 | Based on the gaps identified, specific mitigation measured will need to be considered. Currently, several regional activities have taken place to ensure improved access to and visualization of satellite data and products, considering the EW4ALL roadmap. |
| 1.4 Guide and support the RBON design process (INFCOM (3)) | Behind the planning | Guidance, training | INFCOM | I/WIGOS | RBON Guide, training | High | 2024-2027 | Progress differs in Regions; RA I working group met in December 2024 and started the design process; RA II RBON design workshop took place in February 2025 and the proposed requirements will be discussed at the coming RA II session (22-24 April 2025). RA V RBON design workshop will be held May 2025 to submit requirements to RA V session in Q3/2025. RBON Focus Group was established in RA VI and started the design process at the meeting in Q4/2024 and regular meetings. RBON design process in RA III and RA IV will be initiated soon through the new RA working structures. |
| 2 | Hydrological* Flash floods
* Riverine floods
 | 2.1 Guidance on the use of Satellite data for flood forecasting and product requirements (SERCOM 1.3.01)  | Ongoing as planned | Guidance | SERCOM  | S/HWC | Draft guide to SERCOM in 2026 | Low | 2026 | Table of contents developed, mapped the agencies to be involved, writers identified and in the process of being officially engaged. |
| 2.2 WHYCOS/HydroHub World Hydrological Cycle Observing System | Ongoing as planned | Capacity development projects, monitoring stations, data management | INFCOM | I/WIGOS | Increased data availability from Members | High | Continuous (2 countries per year added) | Activities rely on funders (e.g., expected decisions from Adaptation Fund on Lake Chad Basin expected in Spring 2025) and technical partners (e.g., GWP for SADC region). Indian Ocean HYCOS has started. |
| 2.3 Guidance on observation network density requirements for flood forecasting | Ongoing as planned | Guidance | INFCOM | I/WIGOS | Draft guide to INFCOM in 2026 | Low | 2026 | Work in progress as part of the TT EarthHydroNet. |
| 3 | Meteorological/synoptic* Tropical cyclones and extra-tropical storms
* Heatwaves
* Cold waves
 | Coordination to ensure continual access to satellite data/products, Radar images, AWS data, Buoys, Shipboard observations  | Ongoing as planned | Monitoring | INFCOM | I/WIGOS | Increased data availability from Membersand continued availability of data | High | 2027 | Ongoing activities as part of the day-to-day operation. |
| Ongoing as planned | Coordination with CGMS, GOOS and others | INFCOM | I/WIGOS | High | 2026 | Ongoing activities as part of the day-to-day communication with CGMS, GOOS and others. |
| 4 | Extended range* Drought/dry spells
 | Monitor availability of standard GBON observations, including the support to and liaison with GCOS (INFCOM (2)) | Ongoing as planned | Monitoring | INFCOM | I/WIGOS | Increased data availability from Members | High | 2027 | Compliance monitoring tool launched in 2024; discussion started with GCOS to extend SOFF support to GCOS networks. |
| 5 | Cross-domain* Cryosphere
* Emerging Hazards
 | Pilot recommendations by TPRCC-Network (INFCOM (9), action plan Table 4) | Ongoing as planned | Report, guidance | INFCOM  | I/WIGOS | Guidance on cryosphere observing systemsContinued availability of data | Low | 2027 | Report on scientific recommendations for Glacier Lake Outburst Flooding (GLOF) monitoring – delivered Sept 2024 |
| Ongoing as planned | Monitoring | INFCOM | I/WIGOS | High | 2027 | AG-GCW and SC-WIPPS Workshop took place on Dec 2024 to present results and identify next steps.  |
| Ongoing as planned | Monitoring | INFCOM | I/WIGOS | High | 2027 | Inventory of cryosphere related hazards within the geographical scope of TPRCC – initiated; preliminary report on Glacier Lake hazard observing requirements, monitoring and prediction – drafted. |
|  |  | **International exchange of data (both observation and products) (Strategic Objective 2.2):** |  |
| 6 | Non-hazard specific/cross-cutting | **Implementation of WIS2.0 (INFCOM (1))**Development of manuals and guidesDevelopment and distribution of WIS 2.0 in a Box softwareTraining events and other capacity developmentExplore “Data-in-place” approach (INFCOM (1) and (4), action plan Table 3 - 1.9) | Ongoing as planned | Regulatory material, manuals, guides, capacity development, reports | INFCOM | I/WIS | Regulatory material, Manual and Guide, Training materials | High | 2024-2027 | WIS 2.0 Global Services performance tests completed in Q4 2024, operational phase of WIS 2.0 started. More than 50 countries deployed a WIS2 Node and started publishing data in WIS2A Common Alerting Protocol Alerts Composer (CAP) has been developed3 WIS2 training workshops in 2024 (Brazil, Fiji, Morocco) provided training to 51 Members.5 training workshops of WIS 2.0 planned in 2025 |
| 7 | Hydrological* Flash floods
* Riverine floods
 | 7.1 WHOS WMO Hydrological Observing System as WIS 2.0 hydrological component (INFCOM (1)) | Ongoing as planned | Data sharing system in place | INFCOM | I/WIS, I/ESM | Data sharing system, Regulatory material, Manual and Guide, Training events  | High | Continuous (2 countries per year added)  | New TT established, WHOS is part of related projects.Regional WHOS prototypes in final stages of implementation in RA VI (Sava River and Arctic region). |
| 7.2 FFGS Flash Flood Guidance System (SERCOM 1.3.03) | Behind the planning | Regional data and product sharing  | SERCOM | S/HWC | FFGS system available, training materials | High | Continuously updated | The planned expansion work has stopped. However, operational activities are still ongoing, and data sharing continues in the regions. |
| 7.3 HydroSOS Hydrological Status and Outlook System (SERCOM 1.3.04) | Ongoing as planned | HydroSOS portal | INFCOM, SERCOM, HCP | S/HWC, I/HYM | HydroSOS portal | High | Continuously updated | Uploaded global products: 1 streamflow (HYPE) and 1 drought (SPI) product.Ongoing upload of global products: 1 S2S streamflow outlooks (GloFAS), groundwater status product (IGRAC) and 1 soil moisture status product (ISMN).Countries in the pipeline: Cambodia, Lao PDR, Thailand, and Vietnam.Countries in the process of being added: Canada, Central America, and Peru.Countries added: Argentina, Blue Nile River countries, Czechia, Costa Rica, Fiji LVB countries, New Zealand Uruguay, UK, USA,  |
| 8 | Meteorological/synoptic* Tropical cyclones and Extra-tropical storms
* Heatwaves
* Cold waves
 | 30-year heatwave hazard climatology for a. temperature, b. thermal indices and c. heatwave-intensity indices. (SERCOM 1.2.08) | Ongoing as planned | Data curation | SERCOM | S/ACS | Climatologies | Medium | 2025 | Extreme Heat ET in formation to develop a comprehensive Implementation Plan for Extreme Heat Services |
| 9 | Extended range* Drought/dry spells
 | HydroSOS Hydrological Status and Outlook System (SERCOM 1.3.04) | Ongoing as planned | HydroSOS portal | HCP, SERCOM, INFCOM | I/ESM, S/HWC | HydroSOS portal | *High* | Continuous (5 countries per year added) | The portal currently shows information from 16 countries and 2 global products and is integrating more. All WMO RAs have ongoing activities related to HydroSOS Implementation, including hydrological status development, S2S outlooks, capacity development activities, piloting of models and methodologies, and resources mobilization efforts. |
| 10 | Cross-domain* Coastal inundation/storm surge
* Cryosphere
* Emerging hazards
 |  Development of a White Paper on Services relate to the Cryosphere | Ongoing as planned | Collaborative development of a report | SERCOM, JET-Cryo | HWC and CS |  White Paper | High | Finalise in Q4/2026 | New joint Expert Team was established, Skeleton of the white paper has been drafted. The JET Cryo will have a F2F writeshop in April 2025 to finalize the White Paper. To be submitted to SERCOM in Q3 2025.  |
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| **Global numerical weather prediction (NWP) (Strategic Objective 2.3):** |

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| 11 | Non-hazard specific/cross-cutting | 11.1 Update of the mandatory/recommended products from RSMCs for global NWP (INFCOM (4), action plan Table 3 - 1.6) | Ongoing as planned | Technical regulations/ manual WIPPS | INFCOM | I/WIPPS |  Manual | High | 2024-2026 | The lists of mandatory/recommended products from RSMCs for global NWP were updated at EC-78. RSMCs are requested to produce these new mandatory products by 1 March 2027. |
| 11.2 Establishment and designation of a new WIPPS activity for Climate Reanalysis and designation of new RSMC (INFCOM (4), action plan Table 3 - 1.5) | Completed | Technical regulation/manual WIPPS | INFCOM | I/WIPPS |  Manual | High | 2024 | New WIPPS activities for global climate reanalysis was established and two Centres (ECMWF, USA/NASA) were designated as the Centre for global climate reanalysis. In addition, ECMWF was also designated as LC for global climate reanalysis.  |
| 11.3 Development of the WIPPS Rolling Review of Requirements process (INFCOM (4), action plan Table 3 - 1.10) | Ongoing as planned | User requirements gathering | INFCOM | I/WIPPS | Requirements | Medium | 2025 | The concept of the WIPPS RRR was developed. This draft RRR is being demonstrated by SC-WIPPS in collaboration with SC-DRR and SC-CLI under SERCOM. |
| 11.4 Collect training requirements, including those on the interpretation of large ensembles, uncertainties and nowcasting products (INFCOM (4), action plan Table 3 - 1.11) | Behind the planning | Document preparation | INFCOM, CDP | I/WIPPS | Training materials | High | 2024 | Collect the information on the NWP training from projects and regions. |
| 12 | Hydrological* Flash floods
* Riverine floods
 | 12.1 Catalogue global flood modelling capabilitiesPilot the function of RSHCs for global riverine flood prediction (INFCOM (4), (5), action plan Table 3 - 1.4) | Behind the planning | Investigation | INFCOM, HCP | I/WIPPS | Document | High | 2027 | The Plan of the Pilot was finalized at the Planning meeting (Feb 2025, Geneva, Switzerland). The pilot is being initiated by INFCOM in collaboration with SERCOM.  |
| 12.2 Establish RSHCs for global riverine flood prediction (INFCOM (4), (5), action plan Table 3 - 1.4) | Ongoing as planned | Technical Regulations | INFCOM | I/WIPPS | Manual, designations of centres | Low | 2027 | This will be discussed based on the outcome of the pilot and as a part of the new design of FFGS. |
| 13 | Meteorological/synoptic* Tropical cyclones and extra-tropical storms
* Heatwaves
* Cold waves
 | 13.1 WMCs and cascading by RSMCs , ensemble forecasting, with longer lead time, etc. (SERCOM 1.1.10) | Ongoing as planned | Investigation and development | SERCOM and RB (INFCOM involved after testing) | S/DMPSI/WIPPS | Forecast range extended | Medium | 2026 | Technical Planning meetings for SWFP implementation held for Central America (San José, 21-25 October 2024) , and South East Asia-Oceania (Jakarta, 10-14 February 2025). |
| 13.2 WMCs and cascading by RSMCs, ensemble forecasting, etc (SERCOM 1.1.10) | Ongoing as planned |  Development of Guidance and Training material | SERCOM | S/DMPS | Probabilistic product development | Medium | 2025 | Consultant hired. Survey to identify gaps and needs on the use of probabilistic products developed.  |
| 13.3 Definition and provision of Tropical low/cyclone vortices variables | Completed | SERCOM provides specifications  | INFCOM | I/WIPPS | Manual, Guide, Inclusion in WIPPS manual Report | Medium | 2025 | Done. A new set of tropical low/cyclone variables were developed as a part of mandatory products of RSMCs for global NWP. RSMCs are requested to provide these products by 1 March 2027 the latest. |
| 13.4 Identification of impact-related indices (e.g., Heatwave-intensity Index and thermal indices) (SERCOM 1.2.04) | Ongoing as planned | INFCOM provides data availability, Technical documents | SERCOM,INFCOM | S/DMPSI/WIPPS | Guide, specifications | High | 2025 | A handbook of extreme-heat indicators, indices and metrics is under a final draft review. It is intended to be a companion guide to WMO - NO 1142 guidance on Heatwave and Heat Health Early warning systems. Discussions between SERCOM and INFCOM are planned in 2025 to identify how WIPPS can support Members to access relevant heat indices. |
| 13.5 CLI revision of WMO-No. 1131 Climate Data Management System Specifications (SERCOM 1.2.10) | Ongoing as planned | Technical documents |  INFCOM in consultation with SERCOM | S/CMP, I/WIS in consultation with S/CMP, | Revised WMO.No 1131 on Climate Data Management System Specifications | High | 2027 | This task is part of collaboration between SERCOM and INFCOM. Currently analysed by the Climate Infrastructure TT led by P/INFCOM. |
| 13.6 Possible establishment of Global/Regional Centres on Heatwaves | Ongoing as planned | Technical regulations | SERCOMINFCOM | I/WIPPSS/ACS, S/SMPS | designation of centres and definition/change of function | High | 2027 | In Southeast Asia, the Southeast Asia Heat Health Hub (SEA-HHH) has been established under GHHIN |
| 14 | Extended range* Drought/dry spells
 | 14.1 Identification of impact-related indices (e.g., SPI, SPEI) (SERCOM 1.2.05) | Behind the planning | Investigation | SERCOM | S/CS, S/ACS | Reportof centres | High | 2024 | SC-AGR ET on Drought is currently reviewing this.  |
| 14.2 Provision of impact-related indices (e.g., SPI) (INFCOM (4), action plan Table 3 - 1.7) | Ongoing as planned | Technical regulations | INFCOM | I/WIPPS | Manual update | Low | 2027 | 14.2 will be initiated after the identification of indices (14.1) |
| 14.3 Possible establishment of Global/Regional Centres on Drought Monitoring | Ongoing as planned | Technical regulations | INFCOM, SERCOM | I/WIPPS, S/ACS | Manual, designation of centres | Medium | 2027 | SC-AGR ET on Drought is currently reviewing this. |
| 15 | Cross-domain* Coastal inundation/storm surge
* Cryosphere
* Emerging hazards
 | 15.1 CIFI Coastal Inundation Forecasting Initiativesupport to RSMCs for Numerical Ocean Prediction and Global Numerical Storm Surge Prediction (SERCOM 1.4.05) | Ongoing as planned | Tech Regulations and Guidance  | SERCOM  | S/MAR | Manual and guidance | High | 2025 | CIF Guidance is already published, RMSC GNSSP designation criteria has been approved and pending publication in WIPPS Manual.  |
| 15.2 Establishment of Regional Hydrological Centres on snow cover prediction under WIPPS banner | Completed | Technical regulations | INFCOM | I/WIPPS | Manual, Guide updates | High | 2024 | The designation criteria of RSHC for snow cover prediction was defined in the Manual on WIPPS.Snow water equivalent is now considered as recommended products of GPCs-SP. |
| 15.3 Identification and designation of RSHCs for snow cover prediction INFCOM (4), action plan Table 3 - 1.3) | Ongoing as planned | Technical regulations | INFCOM, | S/HWC, I/WIPPS | Manual, Guide updates | Low | 2027 | WMO called for Members hosting RSHCs; |
|  |  | **Limited area NWP (Strategic Objective 2.3):** |  |
| 16 | Non-hazard specific/cross-cutting | 16.1 Update of the core products from RSMCs for limited area NWP (INFCOM (4), action plan Table 3 - 1.6) | Completed | Regulatory material | SERCOM, INFCOM | S/DMPS; I/WIPPS | Manual and Guide | High | 2024 | The lists of mandatory/recommended products from RSMCs for limited-area NWP were updated at EC-78. RSMCs are requested to produce these new mandatory products by 1 March 2027 |
| 16.2 Identification of potential RSMCs for limited area NWP (INFCOM (4), action plan Table 3 - 1.1) | Behind the planning | Investigation | INFCOM, RA | I/WIPPS | Report | High | 2026 | Initiated in RA I, RA II |
| 17 | Hydrological* Flash floods
* Riverine floods
 | RSHCs for flash flood forecasting (SERCOM 1.3.10) | Behind the planning | Regulatory material | SERCOM | S/HWC | Manual, designation of centres | Medium | 2027\* | The draft of the designation process and self-assessment questionnaire has been prepared by SC-HYD and is currently under review. But the transition has been stopped due to a financial issue. |
| 18 | Meteorological/nowcasting* Thunderstorms/squall lines
 | SWFP coordinated regional and supporting to run fine LAM models resolving thunderstorms. RSMCs limited-area deterministic NWP and limited-area ensemble NWP (SERCOM 1.1.13)RSMCs for nowcasting | Ongoing as planned | Technical regulations,  | INFCOM SERCOM, RAs | S/DMPS I/WIPPS | Manual, Guide | Medium | 2026 | 5 NWP experts from RSMCs SWF (Nairobi, Dakar, Dar es Salaam) were trained at DWD i June 2024. AI-based nowcasting pilot project (AINPP) is ongoing by Members to demonstrate the . The intercomparison is ongoing in Africa.  |
| 19 | Meteorological/synoptic* Tropical cyclones and extra-tropical storms
* Heatwaves
* Cold waves
 | 19.1 High-resolution NWP and RSMCs SWF issue guidance products for heat waves as feasible (SERCOM 1.1.13) | Ongoing as planned | Extended coverage and heat and cold wave guidance incorporated identification of recommended practices | SERCOM | S/DMPS | D.6.2 WIPPS manual updated | Medium | 2026 | Now that the handbook of extreme-heat indicators, indices and metrics is under a final draft review (companion guide to WMO - NO 1142 guidance on Heatwave and Heat Health Early warning systems), discussions between SERCOM and INFCOM are planned in 2025 to identify how WIPPS can support Members to access relevant heat indices. |
| 19.2 RSMCs and NMCs running LAM models with higher resolution and longer lead time. (SERCOM 1.1.13) | Behind the planning | Model development | SERCOM, INFCOM, RAs | S/DMPS | Model updates | High | 2025 | Will be raised in the next AG-SWF meeting |
| 19.3 Improved resolution of humidity and wind fields for extreme heat, thermal, temperature indices. (SERCOM 1.2.04) | Behind the planning | Capacity development materials | SERCOM INFCOM | S/DMPSI/WIPPS | Technical regulations Capacity development materials | High | 2025 | The handbook of extreme-heat indicators, indices and metrics is under a final draft review. It is intended to be a companion guide to WMO - NO 1142 guidance on Heatwave and Heat Health Early warning systems. Discussions between SERCOM and INFCOM are planned in 2025 to identify how WIPPS can support Members to access relevant heat indices. |
| 19.4 Tropical Cyclone – Probabilistic Forecast Products (TC-PFP) | Ongoing as planned | Research | Research Board | SI/WWRP | Enhanced Earth system science and improved products | Medium | 2025 | Survey results,analysed by a workshop and then final report of this group |
| 20 | Extended range* Drought/dry spells
 | Regional Climate Centres (SERCOM 1.2.08) | Ongoing as planned | Possible establishment of Global/Regional Centres on Drought Monitoring | SERCOM | S/CS, S/ACS | Workshops and reports | Medium  |  2026 | SC-AGR ET on Drought is currently reviewing this. |
| 21 | Cross-domain* Coastal inundation/storm surge
* Forest fires
* Cryosphere
* Emerging hazards
 | 21.1 Coastal Inundation Forecasting Initiative (SERCOM 1.4.05) | Ongoing as planned | Guidance | SERCOM | S/MAR | Products  | Medium | 2027 | This is an ongoing initiative, however, plans for expansion of CIFI in Fiji have been stalled by lack of funding.  |
| 21.2 Scaling up and leveraging SWFP, Sand and Dust Storm Warning Advisory and Assessment System (SDS-WAS), Vegetation Fire and Smoke Pollution warning and assessment system (VFSP-WAS), Global Air Quality Forecasting and Information System (GAFIS) (SERCOM 1.1.13) | Ongoing as planned | Designations and guidance | SERCOM, RB, RAs, INFCOM | SI/GAW | Gather requirements and advice on service design for emerging hazards (including forest fires, sand and dust storms and air pollution | Low | 2027 | Supporting the establishment of a new TT under WIPPS to Atmospheric Composition Prediction systems (including SDS and wildfires, but also other air pollution-related centers). Revision of the designation process and mandatory functions of RSMC-ASDF and RMSC-VFSPF under WIPPS. Initial discussions on the requirements needed to establish a global air pollution center under WIPPS (identifying potential stakeholders).Task Team on Fire Weather Services (TTFIR) established to implement a comprehensive, multidisciplinary, and integrated strategy to create early warning and advisory services for wildfires on a global scale.  |
| 21.3 Polar Coupled Analysis and Prediction for Services (PCAPS) | Ongoing as planned | Research | Research Board | SI/WWRP |  | Medium | 2028 | Pending EC approval in 2025 but the project has formed sub-groups and is making good progress |
| 21.4 Urban Prediction Project  | Ongoing as planned | Research | Research Board | SI/WWRP | Enhanced Earth system science and capacity development | Medium | 2029 | Project plan is being developed and will seek WWRP SSC and RB approval in 2025. First tasks to be started. |
|  |  | **Nowcasting (Strategic Objective 2.1 and 2.3):** |  |
| 22 | Non-hazard specific/cross-cutting | N/A | Choose an item. |  |  |  |  |  |  |  |
| 23 | Hydrological* Flash floods
* Riverine floods
 | 23.1 Catalogue nowcasting products/applications both surface- and space- based (SERCOM 1.3.01) | Ongoing as planned | Investigation | SERCOM | S/HWC | Report | High | 2024 | Concept note of Satellite requirements has been finalized and the development of the guidelines are ongoing as planned  |
| 23.2 Identification and demonstration of potential RSMCs for nowcasting and RSHCs for flash flood forecasting (INFCOM (4), action plan Table 3 – 1.2 and 1.3) | Behind the planning | Investigation | RAs, INFCOM, SERCOM | MS, I/WIPPS, S/HWC | Report | High | 2024 | WMO called for Members hosting RSHCs;AI-based nowcasting pilot project (AINPP) is ongoing by Members; |
| 23.3 Identification of RSHCs for flash flood forecasting (INFCOM (4), action plan Table 3 – 1.3) | Ongoing as planned | Technical regulations | RAs, INFCOM, SERCOM | MS, I/WIPPS, S/HWC | Manual, Guide, designation of centres | High | 2027 | Communicated with the Members interested in hosting RSHC for flash flood forecasting and waiting for the finalization of the self-assessment questionary  |
| 24 | Meteorological/nowcasting* Thunderstorms/squall lines
 | 24.1 Catalogue nowcasting products/applications both surface- and space-based (SERCOM 1.1.13) | Behind the planning | Investigation | SERCOM | S/DMPS/ I/WIPPS | Report | High | 2024 |  |
| 24.2 Identification of potential RSMCs for nowcasting (RSMCs NWC) (INFCOM (4), action plan Table 3 – 1.2) | Ongoing as planned | Investigation | INFCOM, SERCOM, RAs | I/WIPPS; S/DMPS | Report | Medium | 2025 | AI-based nowcasting pilot project (AINPP) is ongoing by Members; |
| 25 | Meteorological/synoptic* Tropical cyclones and extra-tropical storms
 | Six hourly updating by RSMCs TC and NMCs, up to five days for each region (seven days by 2027) (SERCOM 1.1.13) | Completed | Technical regulations | SERCOM | S/DMPS | Regional Operational Plans | High | 2024 (2027) | Regional TC committees maintain and update their operational plans. |
| 26 | Cross-domain* Coastal inundation/storm surge
 | N/A | Choose an item. |  |  |  |  |  |  |  |

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| 27 | Non-hazard specific/cross-cutting | 27.1 Train-the-trainers focused on access, processing, visualization, and interpretation of satellite data (INFCOM (7) and (8), action plan Table 2)) | Ongoing as planned | Development of specific training material for IT and forecasting experts | RAs, INFCOM, coordinated through CDP  | MS, I/WIGOS | Training events and materials | High | 2024 | The WMO-CGMS Virtual Laboratory for Education and Training in Satellite Meteorology (VLab) Members are making significant efforts to develop training materials and deliver training focused on access, processing, visualization, and interpretation of satellite data. In the context of the EW4ALL roadmap, these efforts have significant focus on monitoring of priority hazards in various regions. Additionally, it is worth noting that the *Guidelines on Satellite Skills and Knowledge for Operational Meteorologists* have been updated to include skills related to the provision of climate and agrometeorological services. The revised version of the Guidance is currently under approval by INFCOM Members via correspondence. |
| 27.2 Articulate the requirements on graphical WIPPS products (INFCOM (4), action plan Table 3 – 1.8) | Ongoing as planned | Investigation | INFCOM | MS, I/WIPPS | Report | Medium | 2027 | A WIPPS Pilot Project on Multi-Model Integrated Forecasting and Application (MMIFA) is ongoing to assess the benefit of visualization of WMCs’ products |
| 28 | Hydrological* Flash floods
* Riverine floods
 | 28.1 Establishment of Regional Hydrological Centres on flash flood under WIPPS banner(SERCOM 1.3.10) | Ongoing as planned | Technical regulations | SERCOM | S/HWC | Manual, Guide, designation of centres | Medium | 2027 | The related documents, including the self-assessment questionnaire and designation procedure, have been drafted by SC-HYD and are currently under review. The transition has been stopped due to a financial issue. |
|  | 28.2 FFGS(SERCOM 1.3.03) | Ongoing as planned | Development of training materials, Implementation, and improvement of the system  | SERCOM | S/HWC | Training workshops, materials, system Report, manual, tool | High | 2027\* | Flash Flood Guidance System training plan is developed.FFGS training has been conducted for 13 countries in South-East Europe and the Black Sea Middle East region, including Romania, Türkiye, North Macedonia, Serbia, Croatia, Bulgaria, Moldova, Montenegro, Armenia, Jordan, Israel, Bosnia and Herzegovina, and GeorgiaWMO Competency Framework for Flash Flood Forecasting Developed. The process stopped due to a financial issue. |
|  | 28.3 Community of Practice on flood forecasting (SERCOM 1.3.06) | Ongoing as planned | Conducting the workshops and training including gender mainstreaming, stakeholders, and communities | SERCOM | S/HWC | Workshops | High | 2027 | SC-HYD has been working on the Community of Practice on Flood Forecasting. A detailed plan has been developed and the workshop was conducted scheduled in Q4 2024. |
| 28.4 Inventory of models and platforms for flood forecasting (SERCOM 1.3.03) | Ongoing as planned | Collection of models and platforms, technical materials | SERCOM | S/HWC | Report, website | High | 2024 | Additional models have been recommended by RAII Coordination Panel on Hydrology (CPH) reviewed by SC-HYD and uploaded to the website. |
| 28.5 WWRP: Integrated Prediction of Precipitation and Hydrology for Early Actions (InPRHA) | Ongoing as planned | Research | Research Board | SI/WWRP | Workshops, capacity development, enhanced earth system science | Medium | 2028 |  Pending approval of EC in 2025, but sub-groups have been formed and project is moving forward |
| 29 | Meteorological/nowcasting* Thunderstorms/squall lines
 | SWFP develop improved guidance products as feasible with support from satellite operators and RSMCs for nowcasting (SERCOM 1.1.13) | Ongoing as planned | Guidance materials, development, technical regulations | SERCOM, INFCOM | S/DMPS | additional data feeds | Medium | 2025 | Collaboration with NWC SAF and AEMET (Spain) on developing nowcasting training material and case studies videos. Hiring of consultant in process to assist Regional SWF centres in West and Central Africa for improving guidance product |
| 30 | Meteorological/synoptic* Tropical cyclones and extra-tropical storms
* Heatwaves
* Cold waves
 | 30.1 RSMCs TC for regional advisory products and NMCs for national forecasting and warnings (SERCOM 1.1.13) | Ongoing as planned | Capacity development | SERCOM | S/DMPS | Competency for staff at RSMCs and NMCs maintained qualitatively and quantitatively to support business continuity | High | 2024 | Training events supported by RSMCs in all basins, either in the form of training workshops or attachment trainings |
| 30.2 Training Members on Heat-Early Warning System Guidance, etc. (SERCOM 1.1.09) | Ongoing as planned | Capacity development | CDP, SERCOM | S/DMPS, MS/ETRS/ACS | Training materials | High | 2024 | Training Materials and Guidance in advanced stages |
| 30.3 Identification of potential RSMCs for heatwaves centres in product support and train the trainer for extreme heat product suite. (SERCOM 1.2.04) | Ongoing as planned | Investigation, development/consolidation of materials | SERCOM, RAs | S/CS, S/ACS | Scoping paper/Training materials | High | 2024 | There are discussions within the Heat-Health community on this issues. |
| 31 | Extended range* Drought/dry spells
 | HydroSOS (SERCOM 1.3.04) | Ongoing as planned | Global/Regional/National Implementation, capacity building and technical development | SERCOM, INFCOM HCP | S/HWC, S/ACS | Technical guidelines, portal, global workshop | High | 2027 | HydroSOS implementation is ongoing and in the pipeline (about to start and in planning phase) in 63 countries (as of 11.03.2025). Draft methodologies are available (including a Github site) and will be integrated into a HydroSOS Technical Guidelines document. |
| Dynamic Water resources Assessment Tool (DWAT) (SERCOM 1.3.06) | Ongoing as planned | Implementation and improvement of the tool  | SERCOM, HCP | S/HWCMS | updated manual and tool | High | 2024 | DWAT global case studies were presented at AOGS 2024, along with the implementation and training in Cambodia and Lao PDR (a report on implementation is being prepared). The manual for v2 of the tool has been produced.  |
| Training Members on National Drought EWS (SERCOM 1.2.04) | Ongoing as planned | Development of training material | CDP, SERCOM | S/CS, S/ACS | Training events | High | 2024 | SC-AGR ET on Drought is currently reviewing this. |
| Identifications of potential RSMCs drought monitoring (SERCOM 1.2.04) | Ongoing as planned | Investigation | SERCOM | S/CS, S/ACS | Report | High | 2024 | SC-AGR ET on Drought is currently reviewing this. |
| 32 | Cross-domain* Coastal inundation/storm surge
 | CIFI Surge Model Inter-comparison and Surge Climate (SurgeMIP); (SERCOM 1.4.05) | Ongoing as planned | Investigation | SERCOM | S/MAR | Report | Medium | 2025 | This is part of SC-MMO activity and ongoing as planned.  |
| The application of the Competency assessment implementation (Toolkit)-progress; (SERCOM 1.4.03) | Ongoing as planned | Assessment | SERCOM | S/MAR | Report | Low | 2027 | The Toolkit is available and being used by at least one country, and a second country has indicated interest. Ice Forecasting competency training has started.  |
| Consolidation of WMO position and efforts to support members working in tsunami (SERCOM 1.4.03) | Ongoing as planned | Investigation, consultation | SERCOM, JCB | S/MAR | Report | Low | 2027 | Ongoing work as planned in SC-MMO, TOWS WG. JCB in Sept 2024 didn’t object to the approach forward. Development of Guidance on meteorologically driven ocean long waves commenced  |
| 33 | Non-hazard specific/cross-cutting | Impact-based Forecast and Warning Services (IBFWS) eCourse expanded to include priority hazards (SERCOM 1.1.09) | Ongoing as planned | Training material development | CDP, SERCOM | S/DMPS. MS/ETR | Course materials | High | 2024 | E-course translated in multiple languages, also connected to action items on heat. |
| IBFWS online Ecosystem established, maintained, and updated (SERCOM 1.1.09) | Ongoing as planned | System development | CDP, SERCOM | S/DMPS, MS/ETR | Website | High | 2024 | Internal collaborations ongoing to ensure cohesiveness of the IBFWS Ecosystem with WMO websites and platforms. |
| IBFWS competencies reviewed (SERCOM 1.1.09) | Ongoing as planned | Investigation and review | CDP, SERCOM | S/DMPS | Report | High | 2024 | Concept note for the development of a proposal to include IBFWS in the WMO competency framework drafted. |
| WMO Cataloguing of Hazardous Events (CHE) (SERCOM 1.1.01) | Ongoing as planned | Expanded list of hazards developed Technical documentation and operational guidance developed | SERCOM | S/DMPS | Updated technical regulations and guidance materials for implementation | High | 2025 | Presented and approved by SERCOM-ext 2025. |
| 34 | Hydrological* Flash floods
* Riverine floods
 | Guidelines on IBF for floods and droughts (SERCOM 1.3.01) | Behind the planning | Technical documentation | SERCOM | S/HWC, S/ACS | Guidelines | Medium  | 2026Publication in 2027 | The table of contents has been finalized, and the drafting of guidelines is ongoing with SC-HYD core and associated experts. |
| Training materials on the Guidelines on IBF for floods and droughts (SERCOM 1.3.02) | Ongoing as planned | Development of training material | CDP, SERCOM | MS/ETR | Training materials and events | Medium | 2027 | The training materials will be developed once the guidelines on IBF for floods and drought are finalized. |
| Guiding principles for engagement of the private sector to support flood-and drought related EWS and risk management (SERCOM 1.3.08) | Ongoing as planned | Pilot studies | SERCOM | S/HWC, S/ACS | Report | Medium | 2027 | The Working Group on Digital Transformation was established under SC-HYD in collaboration with UNCCD, UNDP, ITU, etc and it was launched during the 1st UN Virtual Worlds Day. The collected pilot study was included in the publication ‘United in Science report 2024’. Case studies are currently being collected.  |
| 35 | Meteorological/nowcasting* Thunderstorms/squall lines
 | Tailored guidance products developed (SERCOM 1.1.13) | Ongoing as planned | Development of products  | SERCOM, RB | DMPS | Products developed | Medium | 2026 | RSMCs SWF coordination under AG-SWF. |
| 36 | Meteorological/synoptic* Tropical cyclones and extra-tropical storms
* Heatwaves
* Cold waves
 | RSMCs TC are leading to developing IBF products with risk information, including impacting areas, utilities, and communities for actions (SERCOM 1.1.09) | Ongoing as planned | Technical documentation | SERCOM | S/DMPS | Updates to Manual and Guides  | High | 2026 | Partially done and handled under regional bodies, coordination with RSMCs. |
| Training Members on good practices for the health and all other heat-impacted essential service sectors (SERCOM 1.2.04) | Ongoing as planned | Development of training materials and delivery | SERCOM, CDP | S/ACS | Training materials and events | Medium | 2025 | The heat solutions package will be available Q2 2025.  |
| SWFP regional subprogrammes (SERCOM 1.1.13)  | Ongoing as planned | Technical documentation | SERCOM | S/DMPS | Training materials and events | High | 2024 | In RAI training were undertaken in Tanzania, Rwanda and South Africa covering Eastern Southern Africa Countries. Two other trainings were held online.  |
| RSMCs SWF cascade WMCs’ heat related products and indices to NMHSs as/when available (SERCOM 1.1.13) | Ongoing as planned | Technical documentation | SERCOM | S/DMPS | Updates to Manual and Guide | High | 2024 | Heat related products & indices as available from WMCs are cascaded (e.g., ECMWF provides Extreme Forecast Index for TMax, TMin. ECMWF also provides various heat related indices )  |
| RSMCs SWF develop specific guidance products in addition to the current hazards (SERCOM 1.1.13) | Ongoing as planned | Support to RSMCs SWF as feasible | SERCOM | S/DMPS | Updates to Manual and Guide | Medium | 2025 | SWFP Guidebook under review. SWFP operational plans for Eastern Africa and South Pacific were reviewed by their respective RSMTs in May and August 2024. |
| 37 | Extended range* Drought/dry spells
 | HydroSOS(SERCOM 1.3.04) | Ongoing as planned | Technical documentation,HydroSOS portal, Seasonal- Sub Seasonal (S2S) forecasts, Capacity development | HCP, RAs, SERCOM, INFCOM | S/HWC, S/HWC, S/ACS, ETRI/ESP | Guidance and training material | High | Continuously (2 countries per year) | Training has been provided on both status and outlook in Lake Victoria Basin, Ghana, Central America, and South America. Some basic materials and an initial Moodle site have been produced to support these efforts. Moreover a training design plan has been developed in coordination with ETR and SC-HYD During 2025 training materials will start being developed accordingly. The S2S forecasting component of HydroSOS developed by the Members, as well as the association with projects (like OUTLAST) helps in bring together both national and global indicators to the HydroSOS portal. ET-OHPS working on S2S standards, Ongoing discussion with centres to become a WIPPS DC for S2S hydrological predictions |
| Framework for the evaluation of gaps and needs with respect to national drought forecasting and early warning systems (SERCOM 1.2.08) | Ongoing as planned | Investigation | SERCOM | S/ACS | Report | Medium | 2025 | SC-AGR ET on Drought is currently reviewing this. |
| WAMIS (SERCOM 1.2.04) | Ongoing as planned | Updating website, Training materials | SERCOM | S/ACS | Training materials and website | Medium | 2024 | SC-AGR and WMO Secretariat is currently working on this. |
| Climate and hydrological prediction services (SERCOM 1.3.08) | Ongoing as planned | Report | CDP, SERCOM | S/HWC | Training materials and events | High | 2025 | Seasonal Hydrological Prediction training design plan has been drafted by SC-HYD |
| Training Members on developing National Drought Plans and Policies (SERCOM 1.2.08) | Ongoing as planned | Capacity development, development of training materials | SERCOM | S/CS, S/ACS | Training materials and events | Medium | 2025 | SC-AGR ET on Drought is currently reviewing this. |
| Guidance on Flash drought (SERCOM 1.2.18) | Ongoing as planned | Technical documents | SERCOM | S/CS, S/ACS | Guidance material | Medium | 2025 | SC-AGR ET on Drought is currently reviewing this. |
| 38 | Cross-domain* Coastal inundation/storm surge
 | Develop an impacts catalogue, based on cataloguing of hazardous sites, for reference in assessing future risks (SERCOM 1.3.03) | Ongoing as planned | Investigation | SERCOM | S/DRR | Report | Low | 2027 | CHE integrated with UNDRR/UNDP revamping of loss and damage reporting tools. |
| 39 | Non-hazard specific/cross-cutting | Common Alerting Protocol (CAP) – WMO e-learning courses updated; (SERCOM 1.1.06) | Ongoing as planned | Development of training material | SERCOM, CDP | ETR, S/DRR | Training portal | High | 2024 | E- learning course on CAP is being updated and first draft of the learning material has been developed and input now being solicited. E-Learning course to include material/content on the CAP editing tool integrated with the WIS2 in a box software.  |
| **CAP editor tool integrated into WIS 2.0 in a box; (INFCOM (1))** | Ongoing as planned | Systems integration | SERCOM, INFCOM | S/DRR, I/WIS | Delivered system | High | 2024 | The revised CAP Editor tool developed, based on the tool by the Regional Office for Africa, is now fully integrated into WIS 2 Box and has been confirmed as fit for purpose. |
| WMO-RAA Incorporated into the technical regulations; (SERCOM 1.1.04) | Ongoing as planned | Technical documentation | SERCOM | S/DRR | Updated Manual and Guide | High | 2024 | Provisions for the WMO-RAA made in the draft EWS Technical Regulations.  |
| WMO-RAA Interface updated; (SERCOM 1.1.04) | Ongoing as planned | Aesthetic updates to the user interface to enhance functionality | SERCOM | S/DRR | Update of the PWS guide | High | 2025 | Consultancy documents for the updating of the PWS guide and enhancing the RAA initiated. Ongoing collaborations with the HKO on these advancements. |
| Progressing EW4All Oriented to Partnerships and Local Engagement (PEOPLE) | Ongoing as planned | Research | Research Board | SI/WWRP | Workshops, reports, training and enhanced social science | Medium | 2028 | Pending approval from EC in 2025, but project has formed sub-groups and is making progress |
| 40 | Hydrological* Flash floods
* Riverine floods
 | Guidelines on communication for hydrological information with respect to forecasting results and related risks (SERCOM 1.3.01) | Ongoing as planned | Technical documentation | SERCOM | S/HWC | Guide | Medium | 2026 Publication in 2027 | An annotated table of content was prepared, and a survey was prepared to identify user’s requirements. It will be tested in 2025  |
| Training materials on Guidelines on communication for hydrological information with respect to forecasting results and related risks (SERCOM 1.3.02) | Ongoing as planned | Development of training materials | SERCOM, CDP | S/HWC | Training materials and events | Low | 2027 | Training materials will be developed once the guidelines are ready |
| 41 | Meteorological/nowcasting* Thunderstorms/squall lines
 | Implementation of Iridium SafetyCast across all METAREAS (SERCOM 1.4.05) | Ongoing as planned | Implementation | SERCOM, RA | S/MAR | Update Manual and Guide, designation of centres | Medium | 2025 | Meeting held in September 2024, IMO deadline set for 1 January 2026, consolidated EGC manual under review.  |
| 42 | Meteorological/synoptic* Tropical cyclones and extra-tropical storms
* Heatwaves
* Cold waves
 | Coordinated standard operating procedures for Tropical Cyclones at regional and national levels (SERCOM 1.1.10) | Completed | Technical documentation | SERCOM | S/DMPS | Updated Manual and Guide | High | 2024 | Guide published. WMO No. 1339 |
| Guidelines on communicating severity classes for warnings. Co-designed hazard/impact studies guide development of heat action plans. (SERCOM 1.2.04) | Ongoing as planned | Technical documentation, investigation | SERCOM | S/DMPS | Guidance material, training events | Low | 2027 | There are discussions within the Heat-Health community on this issue. |
| Training in CAP for temperature, thermal and heatwave-intensity extreme heat warnings. (SERCOM 1.1.06) | Ongoing as planned |  |  |  |  |  |  | There are discussions within the Heat-Health community on this issues. |
| 43 | Extended range* Drought/dry spells
 | Guidelines on Communicating Drought Information *(SERCOM 1.2.04)* | Ongoing as planned | Technical documentation | SERCOM | S/ACS | Guide | Medium | 2025 | SC-AGR ET on Drought is currently reviewing this. |
| Training materials on Guidelines on communication for hydrological information with respect to forecasting results and related risks (SERCOM 1.3.02) | Ongoing as planned | Development of training materials | SERCOM, CDP | S/HWC | Training materials and events | Low | 2027 | Training materials will be initiated once the guidelines are finalized. |
| CAP (SERCOM 1.1.6) | Ongoing as planned | Investigation, Report | SERCOM | S/ACS, S/DMPS | Report and Guidance Materials | Medium | 2027 | SC-AGR ET on Drought is currently reviewing this. |
| 44 | Cross-domain | Training in multi-hazard linkages between drought, dust, heatwave, fire, smoke, and flash flood. (SERCOM 1.1.09) | Behind the planning | Development of training materials, delivery | SERCOM, CDP | S/DMPS,S/ACS | Training materials and events | Medium | 2026 | SC-AGR ET on Drought is currently reviewing this. |
| 45 | Non-hazard specific/cross-cutting | Global Multi-hazard Alert System (GMAS) – CAP guidance updated (SERCOM 1.1.13) | Ongoing as planned | Technical documentation | SERCOM | S/DRR | Guide and Manual | High | 2024 | See items on CAP. |
| CAP helpdesk prototyped and preoperational (SERCOM 1.1.13) | Ongoing as planned | System and capability development | SERCOM | S/DMPS | Helpdesk operating | High | 2024 | Internal collaborations ongoing to ensure cohesiveness of the CAP Helpdesk with WMO websites and platforms. Consultancy for these works to be initiated. |
| Drafting of Business Continuity Guidance to sustain MHEWS (SERCOM 1.1.03) | Ongoing as planned | Guidance material development | SERCOM | S/DRR | Guide | High | 2024 | Guidance already approved, training material to be developed by recently established TT. |
| DRR related standards and technical regulations (SERCOM 1.1.12) | Ongoing as planned | Technical documentation | SERCOM | S/DRR | Manual and Guide | High | 2024 | Draft 1 prepared for wider consultations before submission to SERCOM-Ext2025. |
| Catalogue of Hazardous events (SERCOM 1.1.01) | Ongoing as planned | Investigation, technical documentation | SERCOM | S/DRR | Report, catalogue, Manual and Guide | High | 2024 | Ongoing preparations for submission to SERCOM-Ext 2025. |
| Progressing EW4All Oriented to Partnerships and Local Engagement (PEOPLE) | Ongoing as planned | Research report | RB | SI/WWRP | Workshops, reports, training and enhanced social science | Low | 2028 |  Pending approval from EC in 2025, but project has formed sub-groups and is making progress |
| WMO Coordination MechanismWMO Member and expert advice regularly available to humanitarian agencies  | Ongoing as planned | Decision support | SERCOM | S/DRR | Humanitarian agencies have access to WMO Member’s authoritative information  | High | 2024-2027 |  – WCM delivered more than 400 global/regional products (infographics/scans and briefings) to several humanitarian agencies, thanks to the contributions from WMO Member / Centres.- 2 seconded experts from NMHSs for 3 months and 1week training to 6 NMHSs forecasters-Draft WCM process developed and shared with WMO experts and comments-Collaboration with various NMHSs, RCCs, RSMCs/TCWCs on high impact requests- Resources successfully mobilized to hire two P3 staff- Strategy under development |
| Training strategy and materials available (SERCOM 1.1.08) | Ongoing as planned |  |  |  |  |  |  | New |
| 46 | Hydrological* Flash floods
* Riverine floods
 | APFM HelpDesk on Integrated Flood Management (SERCOM 1.3.05) | Ongoing as planned | Operating the HelpDesk with Support Base Partners | SERCOM | S/HWC | Annual report, Helpdesk operating, Capacity Development,Pilot projects | High | 2027 | Annual report for 2023-24 was finalised and endorsed by the Support Base Partners forum. 58 requests have been received (Aug 2023- Aug 2024) and 51 of them completed, 7 on going.  |
| APFM Guidelines on Transboundary flood risk management (SERCOM 1.3.05) | Ongoing as planned | Developing the technical guidelines | SERCOM | S/HWC | Guidelines | Medium | 2026 | Two meetings of the working group related to the development of the Guidelines were held in August and September 2024 |
| APFM Training materials on Guidelines on Transboundary flood risk management (SERCOM 1.3.05) | Ongoing as planned | Developing the training materials | SERCOM | S/HWC | Training materials | Medium | 2027 | On hold until further development of the Guidelines above |
| 47 | Meteorological/nowcasting* Thunderstorms/squall lines
 | SWFP to support national – subnational decision-making in DRR and disaster response. (SERCOM 1.1.13) | Choose an item.Ongoing as planned | Issuance of guidance products by RSMCs NWC and RSMCs SWF  | SERCOM | S/DRR |  Guidance product | Medium | 2026 | SWFP and IBFWS training workshops were conducted in Liberia (May 2023) and Rwanda (June) to train participants from 16 Members in West and Eastern Africa |
| 48 | Meteorological/synoptic* Tropical cyclones and extra-tropical storms
* Heatwaves
* Cold waves
 | Support national DRR decisions to have a synergized response to tropical cyclones | Completed | Technical documentation | SERCOM | S/DRR | Guide | Medium | 2026 | Guide published. WMO No. 1339 |
| 49 | Extended range* Drought/dry spells
 | IDMP Helpdesk on Integrated Drought Management (SERCOM 1.3.05) | Ongoing as planned | Training and Guidance Materials | SERCOM | S/CS, S/ACS | Training Events and guidance materials | Medium | 2026 | SC-AGR ET on Drought and IDMP is currently working on this. |
| HydroSOS (SERCOM 1.3.04) | Ongoing as planned | Training and Guidance materials | SERCOM | S/HWC | Training Events and guidance materials | Medium | 2026 | Guidance and Training materials plan are being developed by the HydroSOS technical development team, SC-HYD 19 in collaboration with SC-HYD for milestone 32 for capacity development for HydroSOS methodologies  |
| IDMP – Guidance for water use, allocation, and accounting in the Water Energy Food Ecosystems nexus (SERCOM 1.3.05) | Ongoing as planned | Guidance Materials | SERCOM | S/CS | Guidance Materials | Medium | 2025 | SC-AGR, SG-RENE, SC-HYD and IDMP are currently working on this. |
| 50 | Cross-domain* Coastal inundation/storm surge
 | Marine Emergency Response Guide (SERCOM 1.4.05) | Ongoing as planned | Technical documentation | SERCOM | S/MAR | Guide | High | 2024 |  Guide published in 2024 as WMO No.1348. Storm Surge Guide under review by ET-WCHMER, due for delivery Q3/Q4 2025 |
| 51 | * Climate Change and related extremes
 | Annual reporting at global and regional scales (1.2.14) | Ongoing as planned  | Provision of Scientific/Technical reports | SERCOM | S/CMP | One regular annual global report Five regular regional reports | High | 2024-2027 | The State of the Global climate 2024 was launched on 19 March 2025 ahead of WMD.Preliminary findings of the State of the Climate 2024 were also launched at COP-29, November 2024The Regional State of the Climate for Africa, Asia, Europe Latine America an Caribbeans (LAC) and Southwest Pacific are due for launch between April and June 2025. |
| 52 | * Climate watch system
 | Implementation  | Ongoing as planned | Guidance | SERCOM | S/CMP | Regional workshops  | High | 2024-2027 | Guidelines for implementation of climate watch has been published. Consultations with RCCs started in 2025 for making progress in the implementation of climate watch systems in various regions. |