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| **World Meteorological Organization**  **EXECUTIVE COUNCIL**  **Sixty-Eighth Session** Geneva, 15 to 24 June 2016 | **EC-68/Doc. 3.2.3** |
| Submitted by: Chairperson of Plenary  22.VI.2016  **APPROVED** |

**AGENDA ITEM 3: DISASTER RISK REDUCTION, RESILIENCE AND PREVENTION**

**AGENDA ITEM 3.2: IMPACT-BASED DECISION SUPPORT SERVICES**

**AGENDA ITEM 3.2.3: SEVERE WEATHER FORECASTING**

# SUMMARY

### DECISIONS/ACTIONS REQUIRED:

Adopt draft Decision [3.2.3/1](#_Draft_Decision_X.X.X(X)/1) — *Severe Weather Forecasting Demonstration Project.*

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# DRAFT DECISION

## Draft Decision 3.2.3/1 (EC-68)

### SEVERE WEATHER FORECASTING DEMONSTRATION PROJECT

THE EXECUTIVE COUNCIL,

**Mindful** that severe weather events have major implications in terms of loss of lives and livelihoods, and damage to property, and that they are being exacerbated as a result of climate change;

**Notes** that many NMHSs in developing and least developed countries lack the human and technological capacities to provide even a basic level of services, including an adequate programme for severe weather warnings, and make insufficient use of ever advancing forecasting techniques;

**Recognizes** that the Severe Weather Forecasting Demonstration Project (SWFDP) is successfully strengthening capacity in NMHSs in developing and least developed countries to deliver improved forecasts and warnings of severe weather to save lives, livelihoods and property, and that it has improved the lead-time and reliability of warnings of high-impact weather events;

**Notes** the growing success of the initiative with an increasing number of subprojects that are running or being prepared to run, currently in Southern Africa, Southwest Pacific, Eastern Africa, Southeast Asia, Bay of Bengal and Central Asia, and the planned expansion to the Western Africa, Caribbean SIDS, Southern-south America, Southeast Europe, and Oceania;

**Recalls** the decision by Cg-XVI that SWFDP should be an end-to-end cross-programme collaborative activity that engages with all WMO Programmes that concern the real-time prediction of hydrometeorological hazards, through their respective technical commissions: from observations, to information exchange, to delivery of services to the public and a range of targeted applications/user sectors, education and training, capacity development and support to LDCs, and to the transfer of relevant promising research outputs into operations;

**Recognizes**:

(1) That the main objectives of the SWFDP are: (a) to ensure that valuable forecast information regarding severe weather occurrence, readily available in the Global Data-processing and Forecasting System (GDPFS), was effectively used in operations by developing countries; and (b) to further develop the three-layer structure of the GDPFS, applying theCascading Forecasting Process, that would support a sustainable long-term operational mechanism to strengthen NMHS in severe weather forecasting;

(2)With appreciation the synergies being established between the SWFDP and the Flash Flood Guidance System (FFGS) and the Coastal Inundation Forecasting Demonstration Project (CIFDP);

**Acknowledges** that, in SWFDP regional subprojects where beneficiaries are coastal countries, there is a need to fully engage the MMOP and JCOMM community in the development and implementation of subprojects, to ensure that marine aspects are well integrated;

**Encourages** all relevant technical commissions and programmes to be engaged in the steering of the SWFDP, and in the development and implementation of SWFDP regional subprojects facilitating synergy, wherever possible, between their activities and SWFDP;

**Encourages further** that synergies between the SWFDP and the multi-hazard impact-based forecast and risk-based warning services *[ref.* [*EC-68/Doc. 3.2.1*](https://drive.google.com/file/d/0B8DhC1GSWSmxUVRtV1JsQlBBOWs/view?usp=drive_web)*]* be established to maximize the benefits of disaster prevention activities;

**Notes** that the management and implementation of the SWFDP are carried out in four phases:

(1) Phase I – planning, partnership and accountability;

(2) Phase II – implementation and execution (typically focused on 2 or 3 top hazards for the subregion; and 3 to 5 countries);

(3) Phase III – evaluation and broadening the prototype (i.e. addressing more hazards, including more countries, and establishing synergies with other programmes and projects) – returning to phases I to III, as many times as necessary in the subregion (demonstration phases);

(4) Phase IV – Long-term sustainability and future development (operational phase);

**Notes further** that training of forecasters and PWS advisors is a critical component of the SWFDP which must be carried out on an annual basis, and should ensure long-term sustainability of the benefits gained with the SWFDP within the subregions;

**Acknowledges** that, in subregions where the demonstration phases of the SWFDP had been concluded (e.g. Southern Africa), there is a need to pass into the operational phase (i.e. Phase IV) and to rename the project appropriately as an operational activity;

**Acknowledges further** that tropical cyclone-prone regions have well organized and effective warning systems for tropical cyclones, and therefore are “not starting from zero”; however further support and guidance are required for many severe weather events that are not necessarily related to tropical cyclones;

**Requests** the Secretary-General and CBS to continue to give high priority to the implementation of Phases I to III of the SWFDP in subregions that have not benefited from the demonstration phases;

**Recalls** Resolution 13 (Cg-17) – Report of the extraordinary session (2014) of the Commission for Basic Systems concerning the Global Data-processing and Forecasting System and emergency response activities, wherein Cg-17 adopted Recommendation 23 (CBS-Ext.(2014)) – Proposed mechanism to strengthen operational centres, built upon the lessons learned through the SWFDP;

**Endorses** the critical elements for consolidating the SWFDP into global sustainable operational services as provided in the [Annex](#_Annex_to_draft_1);

**Urges**:

(1) Global and regional centres to fulfil the requirements described in the *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485), in order to ensure the effective transition of SWFDP regional subprojects into operations;

(2) Relevant organizations and advanced meteorological services to provide further assistance to Members, especially LDCs and SIDS, MITs, through the Cascading Forecasting Process, for the implementation of their national plans and support the transition of demonstration subprojects into operations.

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Annex: 1

## Annex to draft Decision 3.2.3/1 (EC-68)

### CRITICAL ELEMENTS FOR CONSOLIDATING THE SWFDP INTO GLOBAL SUSTAINABLE OPERATIONAL SERVICES

The Council recognizes the following as critical elements for consolidating the SWFDP into global sustainable operational services:

1. A fully operational regional component of the severe weather forecasting programme, supported by the cascading forecasting process, requires:

 A Regional Management Team (RMT) comprising the PRs (or their representatives) of global, regional and national centres of participating countries, which reports to a Steering Group and the respective regional associations;

 A regional entity (e.g. Meteorological Association for Southern Africa (MASA) for the SWFDP – Southern Africa) to oversee and coordinate, in collaboration with the Secretariat, the subproject activities, including support activities such as training, organizing meetings and resource mobilization. This regional entity requires to be identified before a new SWFDP is initiated to ensure long-term sustainability of subprojects;

 Global centres providing input data and products to the regional and national centres, as agreed through discussions at the RMT;

 A regional centre providing forecast guidance to NMHSs in the region through the cascading forecasting process, and operating and maintaining a dedicated website, as agreed through discussions at the RMT;

 National centres ensuring that appropriate warnings of severe weather are issued.

2. In addition to the activities listed above, the sustainability of operational regional components requires a number of non-operational activities to be supported and funded. These activities include:

2.1 The Regional Management Team is in charge of:

 The strategic leadership for the region;

 Evaluating Phases I to III of the SWFDP regional subproject, and decide on its transition to operations (Phase IV);

 Defining the criteria for the regional severe weather guidance, based on the NMHS criteria for severe weather warnings;

 Assessing every opportunity to combine with existing activities of other programmes and technical commissions related to hazardous weather, such as for flash flood forecasting, marine and aviation;

 Encouraging the use of the cascading forecasting process by other regional projects to facilitate the implementation of multi-hazard impact-based forecast and risk-based warning services.

2.2 The regional entity, in collaboration with the Secretariat, is in charge of organizing:

 RMT meetings around every two years;

 Training for RSMC and NMHS staff on a regular basis, combining on-site training and making use of e-learning facilities;

 Resource mobilization, including sustainable funding for the implementation of new, and further development of the existing, subprojects.

2.3 The Steering Group is responsible for:

 Providing strategic oversight for the further development of the cascading forecasting process;

 Monitoring and evaluating the progress of existing SWFDP regional subprojects and their transition to operations; and provide guidance on the planning, implementation and execution of new SWFDP regional subprojects;

 Facilitating the use of the cascading forecasting process by other WMO Programmes and technical commissions’ activities, based on the SWFDP model;

 Developing recommendations to NMHSs, especially those from LDCs, SIDS and MITs, for their full engagement in and benefit from the cascading forecasting process.

2.4 The NMHSs should contribute to:

 The evaluation of products and provide feedback to global and regional centre(s);

 Keeping up-to-date their criteria for severe weather warnings, according to the feedback provided by the end-users, and inform the RMT as appropriate.

2.5 The regional centre should:

 Be in charge of the routine website maintenance, including upgrades as required;

 Provide regional severe weather guidance, based on the NMHS criteria for severe weather warnings;

 Contribute to the monitoring, evaluation and reporting.

2.6 The global and regional centres which contributed to the demonstration phases of the SWFDP regional subprojects are expected to continue to provide support, on the understanding that their data and products would be used only for the intended purpose by the participating regional centres and NMHSs, fulfilling the requirements for designation described in the draft new *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485).

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1. \* On a PC, in MS Word 2010 go to “**View**” and tick the “**Navigation Pane**” checkbox in the “**Show**” section. In MS Word 2007 or 2003, go to “**View**” > “**Document Map**”. On a Mac, go to “**View**” > “**Navigation Pane**” and select “**Document Map**” in the drop-down list on the left. [↑](#footnote-ref-1)