

EXPECTED RESULT 2**

ENHANCED CAPABILITIES OF MEMBERS TO PROVIDE BETTER CLIMATE PREDICTIONS AND ASSESSMENTS

Enhanced Climate, Weather, Water and Environmental Prediction Framework

SUMMARY

ISSUES TO BE DISCUSSED:

The way forward toward an "Enhanced Climate, Weather, Water and Environmental Prediction Framework"

ADDITIONAL FINANCIAL IMPLICATION:

None, support of two meetings for the proposed "Ad-hoc Panel" in autumn 2008 and early 2009, possibly associated with the PTC meeting from Secretariat resources
For Members, support of appropriate experts to participate actively in development and writing the plan for a framework to EC-LXI

DECISIONS/ACTIONS REQUIRED:

- (a) Adoption of the draft text contained in the Appendix for inclusion in the general summary of EC-LX;
- (b) Establishment of "EC Ad-hoc Panel of Experts on an Enhanced Climate, Weather, Water and Environmental Prediction Framework".

REFERENCES:

1. EC-LX/Doc. 3.1 - Enhanced Capabilities of Members to Produce Better Weather Forecasts and Warnings, Strategic Thrust (Section Research and Development toward a Seamless Process for the Prediction of Weather and Climate; paragraphs 3.1.15 to 3.1.19)
2. EC-LX/Doc 3.2(1) - Enhanced Capabilities of Members to Provide Better Climate Predictions and Assessments (Section 3.2.2.2)
3. The white paper developed by the weather and climate research communities of WWRP, WCRP, and IGBP on the socioeconomic and environmental benefits of a revolution in weather, climate and earth-system prediction (<http://www.wmo.int/wwrp>).
4. The white paper developed by the climate and weather research community on a seamless approach to weather/climate prediction and services delivery(<http://www.wmo.int/wwrp>)

CONTENT OF DOCUMENT:**Appendix for inclusion in the final report:**

Draft text for inclusion in the general summary of EC-LX

Appendix for Information:

EC-LX/Rep. 3.2(3): Progress/Activity Report

** This proposal also strongly supports Expected Results 1, 6, 7, and 8

DRAFT TEXT FOR INCLUSION IN THE GENERAL SUMMARY OF EC-LX

3.2 ENHANCED CAPABILITIES OF MEMBERS TO PROVIDE BETTER CLIMATE PREDICTIONS AND ASSESSMENTS (*agenda item 3.2*)

The way forward toward an “Enhanced Climate, Weather, Water and Environmental Prediction Framework”

3.2.x.1 The Council endorsed the recommendation of the EC WG-CWE (see paragraph 4.3.3) consistent with EC-LX/Docs 3.1 and 3.2(1) that WMO is the most appropriate organization to coordinate enhanced climate, weather, water and environmental prediction services through development and implementation of “An Enhanced Climate, Weather, Water and Environmental Prediction Framework”. The framework could accelerate prediction research, assessments and their links to climate, weather, water and environmental service delivery in the next decade through NMHS activities. It would take into account recommendations of: (i) the World Modeling Summit on Climate Prediction; (ii) the white paper developed by the weather and climate research communities of WWRP, WCRP, and IGBP on the socioeconomic and environmental benefits of a revolution in weather, climate and earth-system prediction [*see Reference 3*]; and (iii) the white paper developed by the climate and weather research community on a seamless approach to weather/climate prediction and services delivery [*see Reference 4*].

3.2.x.2 Following its decision to refocus WMO climate related activities (see paragraph 3.2.6.3) and to promote seamless weather and climate prediction (see paragraphs 3.1.15-3.1.19), the Council approved the formation of an “EC Ad-hoc Panel of Experts on an Enhanced Climate, Weather, Water and Environmental Prediction Framework”, henceforth called “Framework Panel”, with membership and terms of reference as given in the Annex to this paragraph. It would provide a plan of action to EC-LXI targeting the needs of Regions and including recommendations for the International Organizing Committee of the World Climate Conference 3 (WCC-3) to consider. The ultimate goal is to develop a framework for an enhanced climate, weather, water and environmental prediction and services system, under the leadership of WMO, and thus to strengthen the ability of NMHSs to deliver new and improved climate, weather, water and environmental services. The Council emphasized that the proposal should present effective mechanisms for achieving an end to end system, where observations, data and analysis, research, modelling, assessment and prediction, and services delivery using NMHS infrastructures and capacity building initiatives are key components.

3.2.x.3 In that context, the Council endorsed the concept of a world climate research initiative that would develop a seamless transition from today’s weather to tomorrow’s weather/climate prediction and environmental services. This research initiative is a challenge and opportunity for WMO Members and partners that can greatly benefit from increased cooperation between WCRP and WWRP in particular and other groups such as IGBP, taking into account the key contribution from national weather and climate centers.

Annex to paragraph 3.2.x.2 of the general summary

**MEMBERSHIP AND TERMS OF REFERENCE OF THE
EC AD-HOC PANEL OF EXPERTS ON AN ENHANCED CLIMATE,
WEATHER, WATER AND ENVIRONMENTAL PREDICTION FRAMEWORK
(FRAMEWORK PANEL)**

Terms of Reference

With the goal of developing a framework for an enhanced climate, weather, water and environmental prediction and services system, under the leadership of WMO, the Framework Panel will be guided by the following terms of reference:

1. Develop an Enhanced Climate, Weather, Water and Environmental Prediction Framework focusing on strengthening prediction research, assessment, to support the delivery of enhanced climate, weather, water and environmental services in the next decade;
2. Take into account recommendations of: (i) the World Modeling Summit on Climate Prediction; (ii) the white paper developed by the weather and climate research communities of WWRP, WCRP, and IGBP on the socioeconomic and environmental benefits of a revolution in weather, climate and earth-system prediction; and (iii) the white paper developed by the climate and weather research community on a seamless approach to weather/climate prediction and services delivery;
3. Consult with the technical commissions and Regions appropriately;
4. Prepare recommendations to the International Organizing Committee of the World Climate Conference 3 (WCC-3) to have this Framework endorsed by the high level segment of WCC-3 as a legacy of WCC-3;
5. Propose effective mechanisms for achieving an end to end system, including observations, data and analysis, research, modelling, assessment and prediction that supplement services delivery and capacity building initiatives as key components;
6. Recommend ways to reduce the redundancy of efforts and increase synergy between WMO Programmes in supporting the development of improved service delivery and products within the scope of this framework;
7. Provide a report to WMO EC-LXI.

Membership

The Panel should consist of a Chair appointed by WMO Executive Council, the presidents of CAS, CCI, CHy, CBS and Chairs of JSCs of WCRP, OPAG-WWRP and OPAG-EPAC who nominate for selection and approval by the Chair and WMO, four international experts from climate, weather, water and environmental prediction, and four international experts on climate, weather, water and environmental service delivery with appropriate involvement of developing countries' experts.

Secretariat Support

The Research Department would take the lead in organizational support of the Framework Panel with strong involvement of the observations, service delivery and regional activities departments.

World Meteorological Organization

EC-LX/Rep. 3.2(3)

Executive Council

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Enhanced Climate, Weather, Water and Environmental Prediction Framework

PROGRESS/ACTIVITY REPORT

SUMMARY

Reference: EC-LX/Doc. 3.2(3)

CONTENT OF DOCUMENT:

Appendix:

- Progress/Activity Report

PROGRESS/ACTIVITY REPORT

Progress/Activity Report on the Way Forward for an “Enhanced Climate, Weather, Water and Environmental Prediction Framework”

The EC WG-CWE in March 2008 (paragraph 4.3.3.) recognized that WMO is the most appropriate organization to coordinate enhanced climate, water and environmental prediction services through development and implementation of “An Enhanced Climate, Weather, Water and Environmental Prediction Framework”. The “framework” would address, inter alia, improved end to end services related to climate, weather, water and environment. The following process has been followed in initiating the development of this document for EC-LX building upon years of strategy building cited in References 3 and 4.

- (a) Discussions with the Joint Scientific Committee (JSC) of the WMO/CAS World Weather Research Programme and the JSC of the Environmental Pollution and Atmospheric Chemistry as well as with the JSC of the joint WMO/ICSU/IOC World Climate Research Programme;
 - (b) Discussions at the World Modeling Summit for Climate Prediction at ECMWF, 6-8 May 2008;
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