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EXPECTED RESULT 2

**ENHANCED CAPABILITIES OF MEMBERS TO PROVIDE BETTER
CLIMATE PREDICTIONS AND ASSESSMENTS**

**Strategic Thrust: Science and Technology Development and
Implementation**

Report to Plenary on item 3.2

REFERENCE:

EC-LXI/AWP 3.2

APPENDICES:

- A. Draft text for inclusion in the general summary on item 3.2
- B. Draft resolution 3.2/1 (EC-LXI) – Establishment of Regional Climate Centres

APPROVED

DRAFT TEXT FOR INCLUSION IN THE GENERAL SUMMARY OF EC-LXI**3.2 ENHANCED CAPABILITIES OF MEMBERS TO PROVIDE BETTER CLIMATE PREDICTIONS AND ASSESSMENTS** (*agenda item 3.2*)

3.2.0.1 The Executive Council recognized that WMO climate activities included the observations, the research, and specialized knowledge of the treatment and use of climate information (analysis, predictions, products and services, etc.); the enhancements of the capacity of the Members, particularly in developing and least developed countries, as well as close partnerships with many organizations. It therefore noted that certain aspects of WMO climate activities may also be reflected in the documents related to Expected Results 4, 5 6 , 7, 8 and 9.

3.2.0.2 The Council noted that climate activities that fall under Expected Result 2 (Enhanced capabilities of Members to provide better climate predictions and assessments) are guided by a number of WMO constituent bodies and co-sponsored entities including the Commission for Climatology (CCI), the Commission for Basic Systems (CBS), the Commission for Instruments and Methods of Observation (CI MO), the Joint (WMO/Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO)) Technical Commission for Oceanography and Marine Meteorology (JCOMM), the Joint Scientific Committee of the World Climate Research Programme (WCRP JSC) and the Steering Committee of the Global Climate Observing System (GCOS SC). The Council urged enhanced interaction and coordination between these bodies, and relevant associated bodies at the regional and national levels. The Council noted with appreciation that the WCRP JSC and CCI would hold their first joint session at the fifteenth session of the CCI (CCI-XV) (Antalya, Turkey, February 2010).

3.2.0.3 The Council noted the in-depth report of the president of the Commission for Climatology (CCI), including the recommendations on improving the structure and productivity of the Commission, as well as the alignment of its work with the WMO Strategic Plan and for the principal priorities for action following the World Climate Conference-3. The decisions related to the report of the president are presented in document 2.5. The Council urged that the third edition of the Guide to Climatological Practices be finalized and published as soon as possible.

3.2.1 Climate Monitoring and Assessment

3.2.1.1 The Council reiterated the critical importance of Data Rescue activities (DARE) for climate science and applications and noted with satisfaction the ongoing CCI efforts in this matter, particularly the work of the CCI Expert Team on the Rescue, Preservation and Digitization of Climate Records (ET-RPDCR). The Council noted with satisfaction the great interest expressed by Members in developing regions (e.g. Africa, the Caribbean and Asia) to work closely with CCI ET-RPDCR and WMO to further develop and sustain DARE activities in their respective countries. It urged that data rescued under DARE projects should be made available to the research community through a web portal, and that a data policy be developed for DARE activities to ensure its availability.

3.2.1.2 The Council noted that there had been several data rescue programmes for African climate records, which had resulted in the recovery and digitization of a number of invaluable historical climate records. The Council appreciated the strengthened communication between Members regarding the exchange and rescue of climate data. It noted, however, the concern about archiving the rescued data under non-standard archiving conditions, which endangers the integrity of these data. The Council therefore urged Members in Region I to embrace the recommended safeguards of data storage in properly constructed archives, in compliance with WMO recommended practices (WCDMP-55/WMO/TD-No. 1210; WCDMP-68/WMO/TD-No.1481 and WCDMP-69/WMO/TD-No. 1480).

3.2.1.3 The Council noted the critical role of climate metadata in conducting homogeneity and adjustment studies for climate time series suitable for climate monitoring and assessment, and welcomed the ongoing efforts by CCI, CIMO and JCOMM and requested the Technical Commissions to further sustain and develop these efforts. The Council also recognized with appreciation the work of JCOMM to enhance the availability and quality of marine climate data, associated metadata, and data products, which represented a critical part of the overall climate record and assessment process.

3.2.1.4 The Council noted the latest WMO statement on the “Status of the Global Climate” which is produced annually in all WMO official languages, and likewise welcomed with appreciation the initiative of the NMHS of Germany, in consultation with NMHSs in Austria and Switzerland, to make available a German version of the WMO Statement. The Council further appreciated the ongoing efforts of Hungary to reproduce these Statements in Hungarian. The Council encouraged Members to undertake similar initiatives to produce the Statements in other non-official languages to reach a wider audience.

3.2.1.5 The Executive Council noted with appreciation the publication in 2008 of the “Assessment Report on Climate Change and its Consequences in the Russian Federation”, prepared on the initiative of Roshydromet, as the most comprehensive and up-to-date assessment of past, present and future climate change in the Russian Federation. The publication synthesizes information on climate conditions in the country; observed and expected climate change and the consequences of climate change for environmental and economic systems, human health, and possible adaptation measures.

3.2.1.6 The Council welcomed the plan of CCI/WCRP-CLIVAR/JCOMM Expert Team on Climate Change Detection and Indices (ETCCDI) to develop the guidelines on “Extremes in a changing climate”, which would be a key contribution to capacity-building efforts and knowledge development. EC urged Members to promote the use of ETCCDI software on climate indices such as “RClimDex” [*sic.*] in their institutions including NMHSs, universities and research centres and requested CCI and the Secretariat to further promote this tool.

3.2.1.7 The Council urged Members to establish a mechanism within NMHSs to implement Climate Watch Systems based on the WMO recommended guidelines (WCDMP-No. 58, WMO/TD-No. 1269) to support improved climate services for decision making and users.

3.2.1.8 The Council appreciated the Progress Report on the Implementation of GCOS 2004-2008, prepared by GCOS in response to a request from the UN Framework Convention on Climate Change (UNFCCC). It urged Members to review this report and to take the actions necessary to ensure that continued progress is made. The Council reiterated that GCOS was still far from fully implemented and that efforts needed to be continued, in most parts of the world, to strengthen and maintain essential climate observing networks and systems. It encouraged the GCOS network monitoring centres for the GSN, GRUAN and GUAN to continue their efforts to identify the existing gaps while planning for the future and to report to the WMO World Weather Watch and the GCOS Steering Committee and its Atmospheric Observations Panel for Climate (AOPC). It urged Members to address these gaps in climate observing networks, especially Africa (RA I) and South America (RA III), as well as key ocean observing system components, including the Voluntary Observing Ships.

3.2.1.9 The Council acknowledged the critical importance of GCOS National Coordinators in facilitating coordination between atmospheric, terrestrial, and ocean observing domains at the national level in support of improved climate prediction, assessment, and adaptation. It welcomed the opportunity for using the UNFCCC process, in particular, the current negotiations over Long-Term Cooperative Action, to increase political support for strengthening all climate observing networks. It urged Members to support funding for the GCOS Regional Action Plans, noting that improved observations are fundamental for climate prediction. It stressed the need for WMO, both directly and through the GCOS Secretariat, to continue its support for the implementation of the

ClimDev Africa Programme, which among other issues on climate addresses both observational and climate services needs in Africa.

3.2.1.10 The Council acknowledged the importance of the close cooperation with the WMO Technical Commissions and, in particular, with CIMO with regard to the upper air and other observations for climate to ensure the highest possible standard for measurements of climate data.

3.2.2 Climate Prediction and Modelling Research

3.2.2.1 The Council recalled the outcomes of the World Modelling Summit for Climate Prediction (Reading, UK, May 2008) and requested WCRP to ensure full and active participation of scientists from Member countries, particularly from developing countries, LDCs and SIDS, in the emerging Climate Prediction Project.

3.2.2.2 The Council recognized the many contributions of the WCRP Global Energy and Water Cycle Experiment (GEWEX) to improving the performance of global climate models and to the application of improved prediction methods in hydrology. It encouraged Members to continue their support for the associated field experiments, modelling studies, and archiving and the analysis of the resulting data. It also noted with particular appreciation the recent analysis of global precipitation products. The Council urged Members to continue their support for the collection, processing and analysis of the precipitation, cloud and radiation data from satellite and *in situ* measurements.

3.2.2.3 The Council noted with appreciation the success of the WMO/ICSU International Polar Year 2007-2008. It called the attention of its Members to the recommendations contained in IGOS Theme on Cryosphere Report and invited them to contribute to and support the establishment of a WMO Global Cryosphere Watch.

3.2.2.4 The Council noted with satisfaction the major modelling efforts being planned and coordinated by WCRP as input to the next assessment cycle of the Intergovernmental Panel on Climate Change (AR5). The Council was pleased to note that the Programme for Climate Models Diagnosis and Intercomparison (PCMDI) archive facility in the USA for WCRP model outputs (enabling interested parties to access data on simulations) would continue to be made available and encouraged Members to participate in the analyses of the modelling experiment outputs. Further, ongoing model-access activities within the USA may become available during the AR5 timeframe. The Council recognizes and supports new paths to these important high-volume datasets by the community.

3.2.2.5 The Council noted with appreciation that the draft of the review of WCRP carried out by a Panel appointed by its sponsors, including WMO, had been circulated to Members and that the comments received had been taken into account by the Panel. The Council requested the Secretary-General to disseminate the final report of the WCRP Review Panel to Members as soon as it is available, and urged the WCRP sponsors, including WMO, to implement its recommendations.

3.2.3 Operational Climate Prediction

3.2.3.1 Recognizing the continued need of Members for capacity building in order to provide climate information on relevant time and space scales, the Council appreciated the review taken at the completion of the 10 years of the RCOF process (Arusha, United Republic of Tanzania, 3-7 November 2008), and the ongoing efforts to expand, improve and standardize the activities and outputs under the process. The Council noted with appreciation that RCOFs already established around the world in Africa, South America, Asia and South Pacific Islands, continued to hold regular sessions, and to provide climate outlooks and that WMO had provided partial support to several forums in need of resources to enable experts from developing country to participate.

3.2.3.2 The Council noted that in a new initiative, the RCOF for Central Africa was revived after a lapse of nearly six years, and the third session of the forum (PRESAC-3) was held (Bangui, 20-24 October 2008), with support from WMO and ACMAD, whereby ACMAD provided the technical coordination of the session. PRESAC-3 provided seasonal forecast products for October-November-December (OND) rainy season in Central African countries, and focused on water resources management, agro-forestry and health as the core user sectors.

3.2.3.3 The Council expressed satisfaction that the first session of South Eastern Europe Climate Outlook Forum (SEECOF-1) was successful (Zagreb, Croatia, 11-12 June 2008), with a wide participation including international agencies, national and regional climate experts, and representatives of many user sectors. The Council thanked the World Bank, and the NMHSs of Switzerland, Germany, Croatia and Slovenia for their support for this inaugural event.

3.2.3.4 The Council acknowledged the remarkable progress in the implementation of RCOFs around the world, and appreciated the major impetus for this provided by the Climate Information and Prediction Services (CLIPS) project, and the support of NMHSs, regional institutions and sponsors. The Council urged the NMHSs and regional institutions to coordinate their efforts to sustain these activities on a regular basis, and requested the Secretary-General to provide the required guidance. Further, the Council urged the Secretary-General to identify other potential sub-regions that would benefit from RCOFs, and to take all possible steps to support their launch, in consultation with the concerned Members.

3.2.3.5 Noting with appreciation the WMO WCRP IPY Workshop on CLIPS in Polar Regions (St-Petersburg, Russian Federation, 8-11 September 2008), and the agreement to work towards the establishment of a Polar Climate Outlook Forum (PCOF), the Council urged all Members with interests in the Polar Regions, in either hemisphere, to actively contribute to the relevant efforts to identify the priority user requirements for climate information in these regions. The Council highlighted that this would be a unique opportunity for the NMHSs to contribute to the legacy of the ongoing International Polar Year 2007-2008 (IPY). The identification of priorities in the Polar Regions by NMHSs will also contribute to the characterization of the activities to be undertaken by the EC Panel of Experts on Polar Observations, Research and Services.

3.2.3.6 The Council expressed satisfaction with the sustained efforts to issue consensus-based WMO El Niño and La Niña Updates. It urged NMHSs and other relevant institutions to actively participate and support the development of these Updates on a regular basis. In addition, the Council urged CCI and WCRP CLIVAR to consider expanding this process by including the development of reliable updates on other planetary-scale oscillations that have potential impacts on regional climates.

3.2.3.7 The Council expressed its satisfaction that Moscow (Russian Federation) and Pretoria (South Africa) have been approved for formal designation as WMO Global Producing Centres of Long Range Forecasts (GPCs) and that Korea Meteorological Administration (KMA) and NOAA's National Centers for Environmental Prediction (NCEP) have been approved jointly as a new WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble (LC-LRFMME) (see Doc. 3.1). The Lead Centre is currently collecting data from 10 GPCs on a real-time basis, and providing them in a common format to WMO Members through its website. The Council urged Members to avail themselves of the products of the network of GPCs and Lead Centres, and urged the CCI and CBS to promote and guide the uptake of GPC products within RCC, RCOF and NMHS activities for operational climate prediction.

3.2.3.8 The Council recognized that the role of some GPCs will be expanded to provide interannual to decadal predictions to the proposed GFCS. The Council welcomed the statement from the UK Met Office that it would be willing to expand its GPC role to meet the new requirements.

3.2.4 Regional Climate Centres (RCCs)

3.2.4.1 The Council noted the growing interest of Members, and user groups in the establishment of Regional Climate Centres, for provision of a wide suite of regional-scale climate information. The Council emphasized that WMO has a responsibility to ensure that RCC activities complement global and national efforts, and that they adhere to standards and criteria that will ensure the highest quality products.

3.2.4.2 The Council noted the recent progress in the development of the amendments to the Manual on the Global Data Processing and Forecasting System (GDPFS), Volume 1 (Global Aspects) [*Refer Doc. 3.1*], and thereby setting procedures for the establishment of WMO RCCs. The Council complimented CCI, CBS, the regional associations and the Secretariat for their joint efforts in completing the task and adopted draft Resolution 3.2/1 (EC-LXI) on the Establishment of Regional Climate Centres.

3.2.4.3 The Council acknowledged the concerted efforts of China and Japan during the RA II RCC pilot project, and noted with appreciation that Beijing Climate Centre (BCC) and Tokyo Climate Centre (TCC) have successfully demonstrated their compliance with the mandatory requirements for formal WMO RCC designation and have been designated as WMO RCCs in RA II. Further, the Council welcomed that India, the Islamic Republic of Iran, Saudi Arabia and the Russian Federation have initiated actions to establish RCCs as well. Noting that Regional Association VI (Europe) has launched a pilot project to establish an RCC-Network for the Region, with nodes for climate data (the Netherlands), long-range forecasting (France and Russian Federation) and climate monitoring (Germany), the Council urged Members in the Region to extend their full support to ensure the success of the initiative.

3.2.4.4 The Council urged the Secretary-General to promote rapid expansion of the RCC network to cover all Regions, and in particular to place high priority on meeting the climate-related needs of developing and least developed countries. In this context, the Council appreciated the support of the Korean International Cooperation Agency (KOICA) for enhancing the capacity of existing regional institutions in Africa to meet the requirements for designation as WMO RCCs. The Council urged the Secretary-General to facilitate such opportunities for extrabudgetary support for RCC development.

3.2.5 EC Working Group on Climate and Related Weather, Water and Environmental Matters (ECWG-CWE)

3.2.5.1 The Council noted the report of the second session of the EC Working Group on Climate and related Weather, Water and Environmental Matters (EC-WG-CWE) (Geneva, 11-13 February 2009), and that the Group had particularly focussed on 'Review of WCP and Climate Agenda' and 'Global Framework for Climate Services (GFCS)'.

3.2.5.2 The Council noted that the ECWG-CWE had considered possible re-orientation of the WCP, and had emphasized that it should primarily aim at enhancing climate services with adequate focus on user interaction. The Council agreed with the views of ECWG-CWE that the expected outcomes of WCC-3 in the form of the GFCS would be in line with many of the stated goals of the Climate Agenda.

3.2.5.3 The Council noted, from the report of ECWG-CWE, that while GFCS would include most of the components of the WCP (i.e. WCDMP, WCASP and WCRP) and GCOS, the way should be left open for UNEP to reinvigorate the WCIRP of WCP. The Council agreed with the recommendation of the ECWG-CWE not to attempt the revitalization of (IACCA), and to use the UN 'Delivering as One' initiative to coordinate climate issues at the UN level. The Council therefore urged the Secretary-General, in conjunction with the preparation for WCC-3, to begin the consultations required with all sponsors of the Climate Agenda and IACCA, to prepare for this transition.

3.2.5.4 The Council noted the recommendation of the ECWG-CWE that the Climate Agenda should eventually be formally retired and replaced by the GFCS, but agreed to defer its final recommendation on the future of the WCP and the Climate Agenda until EC-LXII.

3.2.5.5 The Council noted that the new UN 'Delivering as One' initiative, a system-wide coherent approach to climate change activities had improved coordination among UN agencies, and appreciated that WCC-3 would provide a unique forum for the UN System to focus on the application of the climate knowledge to support adaptation to climate variability and change. To that end, the Council agreed that WMO should move forward on the 'knowledge-base' theme within the UN initiative, and make use of the opportunity given to WMO and UNESCO [Ref. Doc. 5.1].

3.2.6 World Climate Conference -3 (WCC-3)

3.2.6.1 The Council noted the outcomes of the second and third meetings of the WCC-3 International Organizing Committee (WIOC) (Geneva, 3-5 September 2008, and Bonn, Germany, 16-18 March 2009) and the progress report from the Secretary-General on the preparations for the Conference. It also noted that by building on the achievements of the first and second World Climate Conferences, WCC-3 would further advance development in climate observations, research, and services.

3.2.6.2 The Council noted the efforts made by the Secretary-General in mobilizing resources for WCC-3, and enhancing partnerships with other UN agencies and international organizations and the private sector in its organization. It expressed its appreciation to the Secretary-General for arranging several briefings for the Permanent Missions in Geneva and for involving them in facilitating high level participation in the Conference. It further expressed appreciation to the Governments of Australia, Canada, China, Denmark, Finland, France, Germany, Greece, India, Ireland, Italy, Japan, Kenya, Norway, Pakistan, Russian Federation, Saudi Arabia, Spain, Switzerland and the United States of America (USA), as well as to the European Union, FAO, and UNEP for their commitment of support for the WCC-3. The Council also thanked the governments of Switzerland, USA and Kenya for providing, in addition to the above, in-kind support to the organization of the conference.

3.2.6.3 The Council was informed that the concept of a 'Global Framework for Climate Services (GFCS)', had been developed, under the guidance of the WIOC, as the proposed outcome of WCC-3, and that various WMO bodies including the Presidents of Technical Commissions (PTC) and the EC Working Group on Climate and Related Weather, Water and Environmental Matters (ECWG-CWE) had contributed to its content and direction. The Council noted with appreciation that the GFCS has evolved from the WMO initiative endorsed by EC-LX to support the adaptation to climate variability and change, but suggested that it would benefit from further input from the EC Research Task Team (Ref Doc. 8.1). The Council further noted the efforts of the WIOC to engage other international organizations and relevant sectors including the private sector in its work and in the sessions of the WCC-3 and fully supported the continuation of these efforts in the further refinement of the GFCS.

3.2.6.4 The Council supported the development of the proposed GFCS and noted that its successful implementation would facilitate the improvement of the existing climate services; the development of sector and user-targeted services; capacity building; and a more effective provider-user interface in the provision and application of climate services. As such it would contribute to disaster risk reduction; adaptation to climate variability and change; and economic development, and therefore would provide both near-term and long-term economic and social benefits to society, including WMO Members and their NMHSs.

3.2.6.5 The Council therefore endorsed the overall concept of the GFCS, which may build on a strengthened observation and monitoring component (strongly supported by the Global Climate

Observing System (GCOS)); a strengthened research and modeling component (strongly supported by the World Climate Research Programme (WCRP)); and a new World Climate Services System (WCSS) involving two components: a Climate Services Information System (CSIS) and a User Interface Programme (UIP), which requires critical interactions with sectoral user communities. It stressed the importance of building on the strengths of the existing World Climate Data and Monitoring Programme (WCDMP), the World Climate Applications and Services Programme (WCASP), in particular, the Climate Prediction and Services (CLIPS) project, the GDPFS and in addition the relevant components of other WMO Programmes, in the development and operation of the CSIS and UIP. Further, the Council stressed the need to involve the much broader range of climate service providers and application sectors, beyond WMO, that are now contributing at global, regional and national levels, which would provide critical additional strength to the existing activities. It commended the Secretariat on the preparation of the GFCS Concept Note and urged its further elaboration in collaboration with WMO's partner organizations based on the outcomes of WCC-3, to ensure multi-disciplinary inputs.

3.2.6.6 The Council recognized the potential benefits to Members from the establishment and sustained operation of the existing and proposed global and regional mechanisms for climate service provision and application as part of the GFCS (especially the GPCs, Lead Centres for LRF-MME and the Standardized Verification System for Long-Range Forecasts (SVSLRF), RCCs, RCOFs and other RSMCs currently providing a range of climate services), and through their capability to support adaptation to climate variability and change, particularly to engage in and improve user liaison and development and delivery of products and services to users at national and local levels. The Council requested the Secretary-General to make every effort to ensure that NMHSs take a leading role in the service provision in the GFCS in cooperation with their partners, in order to make GFCS feasible and sustainable. The Council, therefore, urged the Secretary-General to prepare a position paper with the concurrence of ECWG-CWE on how WMO Programmes should become core elements of the GFCS, especially through the unique capabilities and capacities of the NMHSs, and to actively promote these contributions as elements of the proposed GFCS.

3.2.6.7 The Council emphasized the fundamental role of the NMHSs in climate observations, research, and service provision at the national level within their countries, as well as the increasing emphasis now being placed on more integrated approaches to weather, climate, and water observations, research, and service provision. Recognizing that most components of the proposed GFCS will require collaboration between NMHSs and their partner service provider and user communities, it noted with satisfaction that both the observations and research components already enjoy strong participation from outside the NMHSs' communities as a result of the sponsorship of GCOS and WCRP by WMO, other UN agencies and ICSU. It encouraged the development of similar broadly-based involvement of NMHSs' partner organizations and other user communities in the newly proposed CSIS and UIP components of the GFCS. It further recognized that developing countries, and especially least developed countries, may need assistance in participating in the proposed GFCS and urged developed country Members to facilitate the participation of developing country Members in their implementation efforts in the GFCS.

3.2.6.8 The Council noted the recommendations of ECWG-CWE (see also paragraph 3.2.5.4) and requested the Secretary-General to ensure that, in consultation with WMO's partner organizations, a comprehensive proposal for the establishment of the GFCS and the restructuring of the WCP by Cg-XVI is finalized in time for a thorough review by EC-LXII.

3.2.6.9 The Council welcomed the action of the Secretary-General in initiating consultations with Members through their Geneva Missions, as well as through their Permanent Representatives with WMO, on the content of the proposed Conference Declaration. It expressed appreciation to the Government of Switzerland for leading the intergovernmental consultation/negotiation process. After reviewing the most recent draft of the Conference Declaration, the Council requested the Secretary-General to ensure that the views of WMO constituent bodies are taken into account, as far as possible, in the further consultation/negotiation on the draft Declaration. It also requested the

Secretary-General to activate additional processes, if necessary, to achieve wide consensus on the text of the draft Declaration in advance of the opening of the High-level Segment of the Conference. The Council further stressed the importance of informing the Parties at the UNFCCC COP-15 meeting in Copenhagen in December 2009 on the outcomes of the WCC-3, as represented in the final Conference Declaration.

3.2.6.10 The Council was informed that the WIOC has proposed that the further development of the GFCS into an action plan, following the WCC-3, be carried out by an ad hoc high level Task Force of independent advisors convened by the Secretary-General of WMO. The Council also reviewed the WIOC draft of the terms of reference of the proposed Task Force. While recognizing the need for prompt and effective follow-up on the outcomes of the WCC-3, the Council recommended that the Task Force be established in a manner so as to ensure its accountability and that it operate under terms of reference that would deliver effective and realistic results in a timely manner. It requested that the Secretary-General make use of the draft terms of reference, developed by WIOC, as a basis for prior consultations for establishing and convening the proposed Task Force as quickly as possible, to be ready to work immediately after the finalization and issuance of the WCC-3 Conference Declaration, and to ensure that the composition of the task force has the appropriate balance of geography, gender and expertise. The Council finally recommended that an action plan developed by the Task Force be made promptly available by the WMO Secretary-General to the UN System through the Chief Executives Board for Coordination (CEB) and be considered under the Climate Knowledge Base activities of the 'UN System Delivering as One'.

3.2.6.11 Recognizing the need to promote climate applications in key socio-economic sectors and noting the need for partnerships with user sectors to realize more effective climate applications, the Council urged that the sector-specific outcomes from WCC-3, articulated through white papers on applications of climate information for individual sectors, be taken fully into account in implementation of the GFCS by WMO and its partner agencies.

3.2.7 Capacity Building for Improved Climate Prediction and Assessments

3.2.7.1 The Council recognized that CLIPS training sessions and RCOFs have significantly contributed to the capacity building of NMHSs, particularly those in the developing countries, enabling them to undertake climate predictions and assessments. Considering the continued need for sustained training activities, and keeping in view the resource constraints in organizing regional CLIPS training workshops, the Council urged WMO Regional Training Centres (RTCs) to include CLIPS curriculum as part of their regular training programmes, and to pay special attention to "training of trainers" with the collaboration of RTCs, in climate activities.

3.2.7.2 The Council appreciated the efforts of Member countries in supporting capacity building for developing climate services in developing countries, particularly the least developed countries. The Council urged all agencies involved in such capacity building activities to coordinate their efforts to ensure that they are complementary, and thereby optimize the utilization of available resources, and requested the Secretary-General to support such coordination through the provision of relevant information on capacity building activities, and by supporting the activities of relevant working bodies of regional associations and their inter-regional collaboration. The Council urged Members and the Secretariat to continue to support a range of climate training workshops as a means to enable NMHSs to deliver high quality climate data, information and services for decision and policy making, and users in various sectors.

3.2.8 Adaptation to Climate Variability and Change

3.2.8.1 The Council recalled that Cg-XV had entrusted CCI to review the CLIPS project and propose an implementation plan for its future evolution. In this context, the Council agreed with the recommendations of the CCI Management Group that, as a project, CLIPS should have an appropriate sunset date and its accomplishments (for example, RCOF) be consolidated should the

GFCS assume the CLIPS legacy. In this regard, the Council requested CCI to define the role the Commission would play in GFCS implementation and its future programme of work at its upcoming session (CCI-XV, February 2010), which would be integrated into the Secretary-General's comprehensive proposal to be submitted to the EC-LXII (see para. 3.2.6.8).

3.2.8.2 Recognizing the need to understand the extent to which WMO Members are currently engaged in sector-specific activities relevant to Adaptation to Climate Variability and Change, the Council urged all Members to participate in the on-line survey launched in October 2008 by the WMO Secretariat, to facilitate the assessment of the current and potential future role of NMHSs in adaptation to climate variability and change in their respective countries and identify the key gaps.

3.2.8.3 The Council recognized the role of oceans in climate change as well as the impacts of climate change and variability on the marine environment. It therefore welcomed the results of the World Ocean Conference 2009, including the adopted *Manado Ocean Declaration*. In this context, the Council requested the Secretary-General to continue to support such important initiatives in the future, and to bring these results to the attention of Members and partners, including in relevant events such as the WCC-3.

3.2.8.4 The Council noted with interest the plan of the Japan Meteorological Agency to host the Tokyo Climate Conference in July 2009 where representatives of both providers and users of climate information in Asia and the Pacific are invited, and expressed its expectation for its outcome as an input to WCC-3.

DRAFT RESOLUTION

Res. 3.2/1 (EC-LXI) - ESTABLISHMENT OF REGIONAL CLIMATE CENTRES

THE EXECUTIVE COUNCIL,

Noting:

- (1) The *Abridged Final Report with Resolutions of the Fifteenth World Meteorological Congress 2007* (WMO-No. 1026, sections 3.1 and 3.2),
- (2) The Proceedings of the fourteenth session of the Commission for Basic Systems (CBS-XIV, Dubrovnik, Croatia, 25 March-2 April 2009),
- (3) The relevant amendments to the *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485),

Recognizing:

- (1) The enhanced worldwide attention to climate change, the associated socio-economic vulnerabilities and the need to support decision making for adaptation to climate change and variability with more detailed regional climate information,
- (2) The development of technical regulations, through the WMO Commissions for Climatology (CCI) and for Basic Systems (CBS), and regional associations, to include a formal WMO mechanism for designation of Regional Climate Centres (RCCs),
- (3) That an RCC, categorized as a type of Regional Specialized Meteorological Centre, is designed to be a Centre of Excellence that assists WMO Members in a given region to deliver climate services and products and that helps to strengthen NMHS capability to meet national climate information needs,

Decides:

- (1) That the establishment of RCCs and RCC networks shall be done in accordance with the Manual on GDPFS, Volume 1 (Global Aspects);
- (2) That only the centres or groups of centres designated by WMO shall carry the title "WMO RCC" or "WMO RCC-Network" respectively;
- (3) That the establishment of RCCs or RCC-Networks is initiated by the regional associations in consultation with their regional groups responsible for climate services, and that the designation process is coordinated by the CCI, CBS and the WMO Secretariat;
- (4) That RCC responsibilities should be regional in nature while services: products, warnings and advisories at the national level shall be provided by NMHSs for their respective countries;
- (5) Where more than one RCC is established within a WMO region, there should be coordination amongst the Centres to minimize duplication of advanced products and services.

Requests the Secretary-General:

- (1) To ensure that the RCC-related content of the WMO technical regulations, including the Guidelines documents, is reviewed and updated regularly by CCI and CBS, based on feedback from Members, advances in technology and evolving priorities for the Organization;
- (2) To ensure revision, in consultation with CCI and CBS expert groups, of the interim “Guidelines for Establishment and Designation of WMO Regional Climate Centres”, incorporating all relevant decisions of CBS and EC-LXI regarding RCCs, and to publish this as ‘Procedures for Establishment and Designation of WMO Regional Climate Centres and RCC-Networks’, and thus to lay down a well defined process for the establishment and implementation of RCCs and RCC-Networks;
- (3) To facilitate the incorporation of WCC-3 outcomes in the establishment and operation of RCCs and RCC pilot projects;
- (4) To promote a global coverage of RCCs, particularly keeping in view the needs of developing and least developed countries, through resource mobilization efforts with Members having capacity, relevant partnering agencies in the UN System and Development Agencies;

Urges:

- (1) The regional associations to select a preferred structure (that is, one or more multifunctional designated RCCs serving the Region, or a designated ‘RCC Network’ that has several Nodes), but to avoid combining the two in any one Region;
 - (2) The presidents of regional associations to consult with their relevant Working Groups or other entities responsible for coordination of climate activities within the Regions, on all matters related to RCC implementation;
 - (3) The CCI and CBS to establish mechanisms for oversight and updating of the Manual on the Global Data-processing and Forecasting System, Volume 1, Global Aspects for content related to RCC designation and criteria, and for demonstration and regular review of capabilities in support of their designation;
 - (4) WCRP to facilitate the linkages of their regional expert panels with the concerned RCCs;
 - (5) The Global Producing Centres of Long-Range Forecasts (GPCs) to provide the required products and related information and assistance on their use, to RCCs and to pilot RCCs to support their activities;
 - (6) RCCs to additionally include as many as possible of the ‘highly recommended’ functions in their activities;
 - (7) RCCs to closely integrate the implementation of their mandatory as well as recommended functions with activities associated with the CLIPS project in the respective Regions;
 - (8) All Members to support RCC activities, and to use their products and to provide feedback to RCCs and GPCs on effectiveness, improvement and tailoring including the necessary data.
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