

- (2) To promote collaboration and partnership with international agencies and programmes and mobilize extrabudgetary resources for capacity-building activities relevant to climate data modernization including DARE and CDMS projects;

Urges Members, regional associations and NMHSs to further accelerate DARE activities, and to continue their collaboration to assist developing and least developed countries on DARE and CDMS;

Urges Members and regional associations to enhance their efforts in the provision and dissemination of CLIMAT reports, and in the provision of the data required for the compilation of the World Weather Records, which should move towards a system of annual updates, taking advantage of technological advances and the use of modern CDMSs.

Resolution 17 (Cg-XVI)

IMPLEMENTATION OF THE CLIMATE SERVICES INFORMATION SYSTEM

THE CONGRESS,

Noting:

- (1) Resolution 13 (Cg-XV) – World Climate Applications and Services Programme, including the CLIPS project,
- (2) Resolution 8 (Cg-XIII) – Climate Information and Prediction Services project,
- (3) Resolution 4 (CCI-XV) – Further evolution of the Climate Information and Prediction Services project,
- (4) *The Abridged Final Report with Resolutions of the Sixty-first Session of the Executive Council* (WMO-No. 1042),
- (5) *The Abridged Final Report with Resolutions and Recommendations of the Fourteenth Session of the Commission for Basic Systems* (WMO-No. 1040),
- (6) *The Manual on the Global Data-processing and Forecasting System* (WMO-No. 485),
- (7) *The Abridged Final Report with Resolutions of the Twelfth World Meteorological Congress* (WMO-No. 827),

Recognizing:

- (1) The progress made in the Climate Information and Prediction Services (CLIPS) project since its establishment by Twelfth Congress in 1995 and the establishment of Regional Climate Centres (RCCs) and the expansion of Regional Climate Outlook Forums (RCOFs),
- (2) That many of the CLIPS concepts have been adequately reflected in the development of the Global Framework for Climate Services (GFCS),
- (3) The critical role of WMO in establishing the Climate Services Information System (CSIS) component of the GFCS and thereby putting in place operational mechanisms to provide climate information, products and services at different levels,

- (4) The need for strengthening capacities at the national level to deliver climate information and prediction products to users, and to enable mainstreaming of this information and knowledge into decision-making,
- (5) The need for a systematic, regular and reliable flow of climate-related information and predictions from global to regional and national scales, for the eventual benefit of the research community, decision-makers in all climate-susceptible sectors, and governments,
- (6) The interest and contributions of partnering agencies, including those within the United Nations system, with regard to this operational climate capability, in addition to the contributions by WMO to the climate knowledge base and expertise in provision of information related to the management of disaster risks,
- (7) The role of the WMO Information System (WIS) and the Global Data-processing and Forecasting System (GDPFS) as the operational infrastructure underpinning the structure of CSIS,

Decides:

- (1) To establish a Climate Services Information System with global, regional and national entities providing operational climate information, including data, monitoring and prediction products within the GFCS;
- (2) To endorse the proposal made by the Commission for Climatology at its fifteenth session to effect the incorporation of CLIPS activities into the GFCS, and to conclude CLIPS as a project by 2015 at the latest;
- (3) That CSIS operations shall adhere to the WMO Technical Regulations and should generate, as needed, new Technical Regulations pertinent to the advancement of operational climate services;
- (4) That the implementation of CSIS should be guided by the Commission for Climatology;
- (5) That the core operational CSIS products should be standardized in terms of production, presentation, delivery and verification;
- (6) That CSIS will promote consensus-based approaches to facilitate common understanding and user appreciation of uncertainties through, inter alia, Climate Outlook Forums;
- (7) That CSIS should be guided by the long-term vision of providing an authoritative source of climate information required for climate services at global, regional and national scales;

Requests the Secretary-General:

- (1) To promote CSIS and its benefits to partnering agencies, particularly within the United Nations system in the spirit of the United Nations "delivering as one", and pursue partnerships at all levels to meet the objectives of CSIS within the GFCS;
- (2) To raise the requirements for CSIS implementation (infrastructure and human resources aspects) with the relevant institutions and potential sponsors;
- (3) To ensure that CSIS takes advantage of, and makes operational, advances in research that improve climate information and predictions, and that effective communications on requirements and feedback be established with the research community;

Requests the Commission for Climatology:

- (1) To take the leading role in the implementation of CSIS;
- (2) To work towards ensuring the quality of climate information underpinning the climate services, by establishing technical standards in the form of WMO Technical Regulations;
- (3) To work closely with the Commission for Basic Systems to ensure that the development and implementation of CSIS takes full advantage of the capabilities of the WWW;

Urges all Members, regional associations and relevant technical commissions:

- (1) To support the implementation of CSIS by hosting and operating centres of excellence for providing climate information; supporting the required education and training, hiring and retention of qualified climate specialists; developing and sharing the tools for production of high-quality climate products and predictions; making recommendations on standards for CSIS products; and facilitating the flow of information and feedback across global, regional and national scales;
- (2) To help National Meteorological and Hydrological Services and other relevant climate entities to use the products derived from CSIS to address the climate-related information needs of user communities at national and local scales;
- (3) To collaborate as needed in inter-commission and interregional efforts required for the effective and seamless operation of CSIS.

Resolution 18 (Cg-XVI)

WORLD CLIMATE PROGRAMME

THE CONGRESS,

Recalling Resolutions 12 (Cg-XI) and 7 (Cg-XII) – World Climate Programme and its coordination,

Noting:

- (1) *The Abridged Final Report with Resolutions of the Fifteenth World Meteorological Congress* (WMO-No. 1026, Resolution 8 (Cg-XV) – World Climate Programme and its Coordination; Resolution 12 (Cg-XV) – World Climate Data and Monitoring Programme; and Resolution 13 (Cg-XV) – World Climate Applications and Services Programme, including the CLIPS Project),
- (2) *The Abridged Final Report with Resolutions of the Sixty-first Session of the Executive Council* (WMO-No. 1042, agenda item 3.2.5),
- (3) *The Abridged Final Report with Resolutions of the Sixty-second Session of the Executive Council* (WMO-No. 1059, Resolution 9 (EC-LXII) – Establishment of WMO mechanisms for oversight on and response to the establishment and implementation of the Global Framework for Climate Services),