

Geneva
21 June—1 July
2005

Abridged final
report with
resolutions

Executive Council

Fifty-seventh session



World

**Meteorological
Organization**

Weather • Climate • Water

WMO-No. 988

Weather • Climate • Water

REPORTS OF RECENT WMO CONSTITUENT BODY SESSIONS

Congress and Executive Council

- 915 — Executive Council, fifty-second session, Geneva, 16–26 May 2000
- 929 — Executive Council, fifty-third session, Geneva, 5–15 June 2001
- 932 — Thirteenth World Meteorological Congress, Proceedings, Geneva, 4–26 May 1999
- 945 — Executive Council, fifty-fourth session, Geneva, 11–21 June 2002
- 960 — Fourteenth World Meteorological Congress, Geneva, 5–24 May 2003
- 961 — Executive Council, fifty-fifth session, Geneva, 26–28 May 2003
- 972 — Fourteenth World Meteorological Congress, Proceedings, Geneva, 5–24 May 2003
- 977 — Executive Council, fifty-sixth session, Geneva, 8–18 June 2004

Regional associations

- 934 — Regional Association III (South America), thirteenth session, Quito, 19–26 September 2001
- 942 — Regional Association VI (Europe), thirteenth session, Geneva, 2–10 May 2002
- 944 — Regional Association V (South–West Pacific), thirteenth session, Manila, 21–28 May 2002
- 954 — Regional Association I (Africa), thirteenth session, Mbabane, 20–28 November 2002
- 981 — Regional Association II (Asia), thirteenth session, Hong Kong, China, 7–15 December 2004
- 987 — Regional Association IV (North America, Central America and the Caribbean),
fourteenth session, San José, 5–15 April 2005

Technical commissions

- 931 — Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology, first session,
Akureyri, 19–29 June 2001
- 938 — Commission for Climatology, thirteenth session, Geneva, 21–30 November 2001
- 941 — Commission for Atmospheric Sciences, thirteenth session, Oslo, 12–20 February 2002
- 947 — Commission for Instruments and Methods of Observation, thirteenth session, Bratislava,
25 September–3 October 2002
- 951 — Commission for Agricultural Meteorology, thirteenth session, Ljubljana, 10–18 October 2002
- 953 — Commission for Aeronautical Meteorology, twelfth session, Montreal, 16–20 September 2002
- 955 — Commission for Basic Systems, extraordinary session, Cairns, 4–12 December 2002
- 979 — Commission for Hydrology, twelfth session, Geneva, 20–29 October 2004
- 985 — Commission for Basic Systems, thirteenth session, St. Petersburg, 23 February–3 March 2005

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Regional Association V	— English, French
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WMO issues authoritative publications on scientific and technical aspects of meteorology, hydrology and related subjects. These include manuals, guides, training materials, public information and the WMO *Bulletin*.

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GENERAL SUMMARY OF THE WORK OF THE SESSION

The Executive Council (EC) of the World Meteorological Organization (WMO) held its fifty-seventh session at the WMO Headquarters from 21 June to 1 July 2005, under the chairmanship of Mr A. I. Bedritsky, President of WMO.

1. ORGANIZATION OF THE SESSION (agenda item 1)

1.1 OPENING OF THE SESSION (agenda item 1.1)

1.1.1 The President of the Organization, Mr A.I. Bedritsky, opened the session at 10.05 a.m. on 21 June 2005.

1.1.2 In his opening remarks, the President extended a warm welcome to all members of the Executive Council, to their alternates and advisers, and to representatives of the United Nations and other international organizations.

1.1.3 The President extended a special welcome to the recently elected acting members, Messrs P. Manso and N. Frédéric Ouattara, and to the new ex officio members of the Council, Messrs A. Majeed H. Isa, C.C. Fuller and A. Ngari, presidents of Regional Association (RA) II, RA IV and acting-president of RA V, respectively. Six additional acting members were later designated by the Council (see general summary paragraph 1.1.11 below). A complete list of participants is given in **Appendix A** to the report.

1.1.4 The President paid tribute to the outgoing members of the Council, Messrs A. Ndiaye (Senegal), E. Zárate (Costa Rica), M.M. Arafa (Egypt), R. Sorani (Italy), D. Rogers (UK), U. Gärtner (Germany) and Ms M. Couchoud Gregori (Spain), who ceased to be members of the Council since the last session, for their important contributions to the work of the Council and to the international meteorological and hydrological communities. He also expressed his appreciation to Messrs A.J. Dania and Woon Shih Lai, the former presidents of RA IV and RA V, for their outstanding services to the Regions and to the Council as a whole.

1.1.5 The President looked to the Council to provide guidance in ensuring that WMO provided world leadership in expertise and international cooperation in weather, climate, hydrology and water resources, and related environmental issues, and thereby contribute to the safety and well-being of people throughout the world and to the economic benefit of all nations. In that context, there were several major issues to be considered, namely: the impacts of the tsunami in the Indian Ocean, the implications of major developments for the WMO Programmes and activities; WMO's evolving role in addressing a number of global problems concerning the current state of, and changes in the environment; creation of the Global Earth Observation System of Systems (GEOSS); and WMO's activities in the light of the decisions of the Second World Conference on Disaster Reduction (Japan, 2005).

1.1.6 The President also emphasized issues related to hydrometeorological security and resource mobilization. The last few years had shown how hydrometeorological phenomena could adversely affect human well being, thus giving a special resonance to the concept of hydrometeorological security. In that regard, WMO had to play its role in enhancing the

status of National Meteorological and Hydrological Services (NMHSs) which were facing new challenges in the present century.

1.1.7 The President drew attention to the special nature of the Council in that its members were elected in their individual capacity and not as national representatives. In that regard, they should carry out their responsibilities as set down in the WMO Convention and General Regulations. He pointed out that effectiveness in the work of the session depended on the unity and purpose of the Council members.

1.1.8 The President encouraged the members of the Council, especially the new members, to participate fully in the debates of the session. He specially mentioned the need to take maximum advantage of the presence of the presidents of technical commissions, hydrological advisers of the regional associations, and representatives of other WMO subsidiary bodies as well as partners of the Organization. He was confident that the session would be very successful in view of WMO's traditional spirit of cooperation among the members of the Council and the support that the Council received from the Secretariat.

1.1.9 The Secretary-General welcomed all participants, in particular the new members of the Council and representatives of the United Nations and other partner organizations. He emphasized the many changes that had been introduced to enhance the efficiency and effectiveness of the Council's work. He was confident that the session would be conducted in a most effective manner in the traditional spirit of cooperation under the leadership of the President and the support of the Vice-Presidents, and the other members of the Council. He assured the Council that the Secretariat would provide all the necessary support to enable the Council to discharge its responsibilities in a most effective manner.

1.1.10 The Council expressed its appreciation to Vice Admiral Conrad C. Lautenbacher, Jr., Undersecretary of Commerce for Oceans and Atmosphere, Administrator of the National Oceanic and Atmospheric Administration (NOAA), and Co-chairperson of the Group on Earth Observations (GEO) for his presentation of GEOSS and ongoing activities of GEO on 23 June 2005. The Council advocated that WMO take an active role in GEO and noted positively the establishment of the GEO Secretariat at the WMO Headquarters. The Council noted the key role that GEO was playing in establishing a global all-hazards early warning system. The Council also emphasized the critical role that WMO played in such a system, noting the strengths of the Global Telecommunication System (GTS) and other programmes. The Council agreed to encourage more WMO Members to join GEO and become more active in the GEO process. Information was provided to Members on how to join GEO.

1.1.11 The Council elected Messrs Mourad Shawky Saadallah (Egypt), Sanjiv Nair (India), D. Francisco Cadarso González (Spain), John Mitchell (UK), Wolfgang Kusch (Germany) and Massimo Capaldo (Italy) as new acting

members of the Council. The Council welcomed them and looked forward to their contributions to the work of the Council.

1.1.12 The Council paid tribute to Mr Cyril Egbert Berridge (British Caribbean Territories) who passed away on 28 February 2005. Mr Berridge served WMO since 1983 as a member of the Executive Council, president of RA IV and as First Vice-President, during which time he was a tireless supporter of WMO and an avid defender of developing country interests until his retirement in 1999.

1.2 APPROVAL OF THE AGENDA (agenda item 1.2)

The Executive Council approved the proposed annotated agenda.

1.3 ESTABLISHMENT OF COMMITTEES (agenda item 1.3)

1.3.1 The Executive Council decided to conduct its business in Plenary throughout. In that context, Mr A. Bedritsky, President, would chair the General Plenary. Messrs A.M. Noorian, First Vice-President, T.W. Sutherland, Second Vice-President and M.A. Rabiolo, Third Vice-President, would chair Plenaries A, B and C, respectively.

1.3.2 A Coordination Committee was established in accordance with General Regulation 28. It was composed of the President, the three Vice-Presidents, the Secretary-General or his representative, as well as others invited by the President, as necessary.

1.3.3 The Council decided to establish a number of subcommittees to consider special items:

- (a) A subcommittee on programme and budget for the biennium 2006-2007, with Messrs U. Gärtner as chairperson and Chow Kok Kee as co-chairperson. Brig. General J.J. Kelly, and Messrs K. Nagasaka, M. Mhita, R. Michelini, G.B. Love, J.-P. Beysson and Qamar-uz-Zaman Chaudhry were appointed as core members. The subcommittee was open to all members of the Council;
- (b) A subcommittee on the arrangements for scientific lectures during the fifty-eighth session of the Executive Council and the IMO Lecture at Fifteenth Congress, with Mr A.D. Moura as chairperson. That subcommittee was open to all members of the Council;
- (c) A subcommittee on the theme for World Meteorological Day 2007, with Mr B. Kassahun as chairperson. That subcommittee was also open to all members of the Council.

1.3.4 The Council appointed Mr H.H. Oliva as Rapporteur on the Previous Resolutions of the Executive Council.

1.4 PROGRAMME OF WORK OF THE SESSION (agenda item 1.4)

The necessary arrangements concerning the working hours and the allocation of agenda items to the General Plenary and Plenaries A, B and C were agreed.

1.5 APPROVAL OF THE MINUTES (agenda item 1.5)

The Executive Council noted the decision made at its fiftieth session and confirmed by Thirteenth Congress that no minutes of plenary meetings at sessions of the Executive Council, regional associations and technical commissions

should be prepared unless otherwise decided for special items. Tape recordings of plenaries would continue to be made and would be retained for record purposes.

2. REPORTS (agenda item 2)

2.1 REPORT BY THE PRESIDENT OF THE ORGANIZATION (agenda item 2.1)

2.1.1 The Executive Council took note of the report of the President, which provided an overview of the progress of the Organization since its fifty-sixth session, covering the work of constituent and subsidiary bodies of WMO as well as that of the fifth session of the Consultative Meeting on High-level Policy on Satellite Matters. The President also highlighted the issues that the Council would have to address, such as the role of NMHSs in a rapidly changing world, and the contribution of WMO to sustainable development.

2.1.2 The other issues raised in the report requiring actions and decisions were dealt with under the relevant agenda items.

2.1.3 The Council confirmed the approval of the extension of the appointments by the President on its behalf since its last session under General Regulation 9(7)(b): (a) Director, World Weather Watch Department for 12 months until 31 August 2005; (b) Director, Cabinet and External Relations for 12 months until 30 November 2005; (c) Director, Global Climate Observing System, for further nine months until 31 May 2005; and (d) Chief, Tropical Cyclone Programme Division, Applications Programme Department for a further 12 months until 31 August 2005.

2.2 REPORT BY THE SECRETARY-GENERAL (agenda item 2.2)

2.2.1 The Executive Council took note of the report by the Secretary-General. The report highlighted the major activities of WMO since the last session as well as the issues and challenges facing the Organization and NMHSs including those arising from global initiatives such as the context of the Millennium Development Goals, the International Meeting on Small Island Developing States (Mauritius, January 2005,) and the Second World Conference on Disaster Reduction (WCDR) (Japan, January 2005), as well as the follow-up to the Indian Ocean tsunami of December 2004. The Secretary-General emphasized the importance for the Organization to be well-positioned to respond effectively to the development and environment challenges facing its Members and to work towards enhancing the image and visibility of the Organization and NMHSs, as well as contribute to the sustainable development at the national, regional and global levels.

2.2.2 The other issues raised in the report requiring action or decision were dealt with under the relevant agenda items.

ACTION PLAN ON MANAGEMENT REFORM AS OF JUNE 2005

2.2.3 The Council noted the Action Plan on Management Reform as of June 2005.

2.3 REPORTS BY THE PRESIDENTS OF REGIONAL ASSOCIATIONS (agenda item 2.3)

2.3.1 The Executive Council took note of the reports of the presidents of regional associations which provided a

comprehensive analysis of the activities in their respective Regions including the work of regional associations subsidiary bodies and the thirteenth session of RA II (Asia) and the fourteenth session of RA IV (North America, Central America and the Caribbean). It expressed satisfaction at the effective manner in which the activities of the associations were being undertaken and it commended the presidents for the continued dedication with which they worked in their respective associations to assist in the development of the NMHSs of their Members.

2.3.2 The Council recognized that there were both common issues and specific regional questions of concern. In that regard, the Council underscored the need for more concrete action from Members and from the WMO Secretariat to strengthen NMHSs in developing countries, in particular the least developed countries and small island developing States (SIDS).

2.3.3 Considering the follow-up to the tragedy of the Indian Ocean tsunami of December 2004 and the need for an effective multi-hazard approach warning system, the Council highlighted the importance of implementing regional projects such as the RA II pilot projects on “Provision of City-specific Numerical Weather Prediction Products to Developing Countries via the Internet” and “Support for the Developing Countries in the Aeronautical Meteorology Programme”. It recognized that those projects, if implemented, would raise the profile of the NMHSs of developing countries especially in least developed countries with their own governments, which in turn would encourage those governments to maintain or increase the support to those Services, particularly Global Observing System (GOS) sites. Therefore, the Council requested the Secretary-General to support those projects and to explore the possibility of launching similar projects in other Regions.

2.3.4 The Council also requested the Secretary-General and Members to give high priority to the modernization and upgrading of the GTS, in particular in RAs I, II, III and V.

2.3.5 The Council noted the great concern expressed by the presidents of regional associations on the need for the continued operation and maintenance of observing systems, including the consequences of the forced replacement of certain radiosondes, on some NMHSs. The Council requested the Secretary-General to continue to follow-up that issue and to provide assistance to Members as appropriate.

2.3.6 The Council further recognized and concurred with the presidents of regional associations on the necessity to address the following issues in a timely and efficient manner:

- (a) The provision of support to Members, including training and technical assistance, to enable NMHSs to move to new coding systems (BUFR, CREX, etc.) and to the use of numerical weather prediction (NWP) products from relevant regional centres;
- (b) The need for more Members from all Regions to embrace the GEO process in order to be fully involved in the GEOSS implementation and to develop well-coordinated national plans;
- (c) The development of partnership at regional/subregional levels, including regular meetings of Directors of NMHSs;
- (d) The provision of support for the development and implementation of strategic plans of regional associations,

taking into consideration the national and regional sustainable development priorities;

- (e) The impact of the Infrastructure for Spatial Information in Europe (INSPIRE) initiative in Europe and the single European Sky regulation on NMHSs in RA VI and in other Regions in the future;
- (f) The provision of new climate data management and data rescue systems to Members, as appropriate;
- (g) The establishment of Regional Climate Centres (RCCs) by regional associations;
- (h) The need to improve the participation of representatives from least developed countries to WMO meetings;
- (i) The evaluation of the socio-economic benefits of Meteorological and Hydrological Services.

2.3.7 The Council requested the Secretary-General and Members to give priority to those concerns in the preparation and implementation of technical assistance/development plans and activities in supporting NMHSs, especially least developed countries and SIDS.

2.3.8 The Council also recognized the importance given by the Regions for undertaking socio-economic benefits studies. It encouraged the Members to promote such studies and analyses and requested the Secretary-General to provide support in that regard.

2.3.9 The Council requested the Secretary-General to provide assistance, as appropriate, to upgrade the Emergency Managers Weather Information Network (EMWIN) and to extend the radio and Internet (RANET) system considered as cost-effective communication technologies for end-user products delivery.

2.3.10 The Council also requested the Secretary-General and Members to continue to mobilize resources for the implementation of various Hydrological Cycle Observing System (HYCOS) projects which would significantly contribute to flood forecasting and control in the Regions.

2.3.11 The Council noted with satisfaction the increasing cooperation between RAs III and IV, including through the organization of joint technical conferences and workshops.

2.3.12 The Council expressed its appreciation to those Members who had hosted various meetings, conferences, training events and sessions of regional associations or provided assistance to the other Members in need. It also expressed its gratitude to Messrs Arthur J. Dania (Netherlands Antilles and Aruba) and Woon Shi Lai (Singapore) for their valuable contribution while serving as presidents of RAs IV and V, respectively.

2.3.13 The other matters raised in the reports of the presidents of regional associations were dealt with under relevant agenda items on scientific and technical programmes, including the Regional Programme.

2.4 REPORT OF THE FINANCIAL ADVISORY COMMITTEE (agenda item 2.4)

The Executive Council considered the report of the Financial Advisory Committee. It noted with appreciation the various recommendations of the Committee contained in **Annex I** to this report. The Council took account of those recommendations in making its decisions under the various agenda items.

2.5 REPORT ON THE 2005 MEETING OF THE PRESIDENTS OF THE TECHNICAL COMMISSIONS
(agenda item 2.5)

2.5.1 The Executive Council noted that the presidents of technical commissions had agreed that a coordination mechanism among technical commissions in the area of disaster reduction and prevention was important and had requested the Secretary-General to address that issue.

2.5.2 Taking into account the rapid pace in the development of GEOSS, the Council requested the presidents of technical commissions to appoint a GOESS Rapporteur/Coordinator within their Commissions.

2.5.3 The Council appreciated the fact that the presidents agreed to focus on a review of the WMO Technical Regulations relevant to observation generation, identifying and rectifying deficiencies, duplications, inconsistencies and errors.

2.5.4 The Council supported the view of the presidents to establish expert teams within technical commissions to foster development of the Future WMO Information System (FWIS), in particular as regarded data management, metadata, XML and data exchange. It noted the proposal of the presidents of technical commissions to rename FWIS as WMO Information System (WIS).

2.6 REPORT OF THE CHAIRPERSON OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE
(agenda item 2.6)

2.6.1 The Executive Council expressed its appreciation to the Chairperson of the Intergovernmental Panel on Climate Change (IPCC), Mr R.K. Pachauri, for his report on the current status of the work of the Panel.

2.6.2 The Council congratulated the Panel on the successful completion of the Special Report on Safeguarding the Ozone Layer and the Global Climate System: Issues related to Hydrofluorocarbons and Perfluorocarbons, which has been prepared jointly with the Technology and Economic Assessment Panel (TEAP) to the Montreal Protocol. It noted the intention of IPCC to distribute the published report to WMO Members.

2.6.3 The Council welcomed the progress made in the preparations of the IPCC Fourth Assessment Report and the decision taken by the Panel at its twenty-second session to prepare a Fourth Assessment Synthesis Report. The Council looked forward to the completion of the Fourth Assessment Report and its Synthesis Report in 2007.

2.6.4 The Council noted the progress made in the preparation of the Special Report on Carbon Dioxide Capture and Storage and the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, and looked forward to their completion in the current and the next year, respectively.

2.6.5 The Council adopted **Resolution 1 (EC-LVII)**.

3. SCIENTIFIC AND TECHNICAL PROGRAMMES
(agenda item 3)

3.1 WORLD WEATHER WATCH PROGRAMME (agenda item 3.1)

3.1.1 WWW BASIC SYSTEMS AND SUPPORT FUNCTIONS; THE REPORT OF THE PRESIDENT OF CBS AND THE REPORT OF THE THIRTEENTH SESSION OF CBS (agenda item 3.1.1)

3.1.1.1 The Executive Council noted the report of the thirteenth session of the Commission for Basic Systems (CBS)

held from 23 February to 3 March 2005 in St. Petersburg (Russian Federation) and approved for implementation the following recommendations submitted by CBS-XIII:

- (a) Recommendation 1 (CBS-XIII) Required training relevant to AMDAR;
- (b) Recommendation 2 (CBS-XIII) *Amendments to the Manual on the Global Observing System* (WMO-No. 544) Volume I, and the *Guide on the Global Observing System* (WMO-No. 488), Part II;
- (c) Recommendation 3 (CBS-XIII) *Amendments to the Manual on the Global Telecommunication System* (WMO-No. 386), Volume I, Parts I and II;
- (d) Recommendation 4 (CBS-XIII) *Amendments to the Manual on Codes* (WMO-No. 306) Volume I.2;
- (e) Recommendation 5 (CBS-XIII) *Amendments to the Manual on Codes* (WMO-No. 306) Volume I.1;
- (f) Recommendation 6 (CBS-XIII) *Amendments to the Manual on the Global Data-processing and Forecasting System* (WMO-No. 485).

3.1.1.2 The Council further approved the implementation of the new draft Attachment II.8 for the *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485), entitled "Standardized Verification System (SVS) for Long-range Forecasts (LRF)" which was endorsed by the president of CBS in Recommendation 1 (CBS-05) to replace the current text of Attachment II.8 and II.9.

3.1.1.3 With respect to the RA I Strategy for enhancing WWW basic systems developed in the broader context of sustainable development for Africa, the Council recalled that actual implementation planning was dependant upon resource mobilization. It requested the Secretary-General and RA I to revisit the implementation of the RA I Strategy in light of new opportunities, including the development of the Tsunami Warning System in the Indian Ocean.

3.1.1.4 The Council adopted **Resolution 2 (EC-LVII)**.

3.1.1.5 The Council noted the Progress/Activity Report on the implementation of the World Weather Watch (WWW) and decided as follows:

- (a) As regarded the GOS programme, the Council:
 - (i) Noted the status of implementation and operation of the surface- and space-based subsystems of the GOS and urged Members to continue to undertake every effort to secure sustainable data availability for the provision of meteorological services worldwide; appreciated the contribution made by satellite operators by providing a growing range of valuable data, products and services; in connection with the International Polar Year (IPY), urged Members to reactivate observing stations, especially in polar regions;
 - (ii) Requested the Secretary-General, and CBS in collaboration with the Commission for Atmospheric Sciences (CAS), to give additional emphasis to research and development directed toward providing more detailed guidelines on the operation of adaptable observing programmes and systems; that should, through appropriate implementation activities, as soon as possible, enhance Members' capabilities to prepare for, and respond more effectively to, high-impact weather seasons or

- periods through an improved early warning capacity, while, at the same time, help to achieve economies in the operations of selected observation networks. That was seen as a direct and important contribution to the cross-cutting Natural Disaster Prevention and Mitigation (DPM) Programme;
- (iii) Requested CBS to coordinate effectively the conduct of Observing System Experiments (OSEs) as a valuable scientific tool for advising Members on possibilities for implementing adaptable observing programmes as part of the redesign of the GOS, and recommended the organization of a workshop to evaluate relevant scientific findings;
- (iv) Recognized the substantial work carried out in the development of the Implementation Plan for the Evolution of Space- and Surface-based Subsystems of the GOS and requested CBS to emphasize in its future work programme the implementation aspects of the recommendations developed, in close cooperation with the regional associations and technical commissions;
- (v) Called on the regional associations to consider and coordinate, as appropriate, the implementation of the proposals on the redesign of the GOS relevant to their regions;
- (vi) Noting that the high cost of equipment and consumables continued to be a pressing issue in many NMHSs, urged Members to exploit more effectively cooperation and joint funding schemes in accordance with relevant Congress guidelines, requested the Secretary-General to coordinate the required implementation coordination activities at the regional level; and addressed requirements for additional funds under agenda item 5;
- (vii) With reference to progress made in the development of the GEO process, requested CBS to coordinate its activities across the relevant Open Programme Area Group (OPAG), related to the implementation of the GEOSS 10-year Plan with a view to enhancing operations of the WWW relevant to GEOSS;
- (viii) Noting the report on the impact of the forced need to replace certain radiosonde systems on the upper-air network, requested the Secretary-General to monitor the situation and take every possible action towards avoiding a prolonged loss of upper-air data, especially in developing countries; also requested the Secretary-General to encourage radiosonde system providers to develop interoperable systems; to investigate the planned technology changes of radiosonde production of relevant manufacturers; and to keep the Council and Members informed;
- (b) As regarded the GTS and Data Management programmes, the Council:
- (i) Agreed that the work programme for the GTS and Data Management programmes set up by CBS-XIII under the OPAG on Information Systems and Services, including activities relevant to FWIS, would address the most relevant development issues;
- (ii) Noting that the qualifier “Future” in the name Future WMO Information System (FWIS) had been appropriate at the time when the concept had been launched, but that it was no longer adequate, as the concept had been progressing to the implementation phase, agreed with CBS-XIII and the Intercommission Coordination Group (ICG) on FWIS to use the name WMO Information System (WIS) instead of Future WMO Information System (FWIS);
- (iii) Requested the relevant individual WMO Programmes and the corresponding technical commissions to finalize the comprehensive and consistent status of data exchange and data management requirements, to map those requirements to the functional components of WIS, to test the draft version 1.0 of the WMO Core Profile of the ISO Metadata Standard, and to ensure the cooperation and coordination between corresponding Expert Teams through the work of the ICG-WIS;
- (iv) Recommended a proactive promotion of the WIS in WMO bodies’ sessions, including technical commissions and regional associations, and by promoting presentations in conferences and similar events, and recommended the implementation of a WIS Web page on the WMO Web site;
- (v) Noting the remarkable progress made in the implementation of the improved main telecommunication network (MTN) and the CBS work plan to review and update the organization and design principles for the GTS (especially the MTN) to take the best benefits from Information and Communication Technology (ICT) development, reaffirmed that the GTS and the improved MTN would be the basis for the core communication component of WIS that would facilitate the reliable exchange and delivery of time-critical data and products;
- (vi) Emphasizing the important role of satellite-based data-distribution systems and noting with appreciation their extensive implementation and the significant technological upgrades (e.g., DVB-S) that were achieved, urged CBS to pursue the coordinated integration of those systems, in particular, the new Integrated Global Data Dissemination Service (IGDDS), into the GTS/WIS as components for the distribution of a large volume of information;
- (vii) Realizing the important role that WMO would have to play in contributing the essential data exchange and data management services to the future GEOSS (see agenda item 10.5), urged the Secretary-General, volunteering Members and the ICG-WIS, with the support of relevant technical commissions, to develop a work plan and expedite the development of key components of

- WIS with a view to facilitating implementation, at least in some countries, in 2006 instead of 2008, as originally planned;
- (viii) Decided to consider the allocation of additional financial resources to support two GTS/WIS implementation coordination meetings and assistance to Members in strengthening their GTS operations and in the design and implementation of FWIS under agenda item 5;
- (ix) Appreciating the guidance material being developed by CBS for the operational use of the Internet with minimized operational and security risks, and its importance for smaller NMHSs, requested CBS to pursue actively that task, and urged NMHSs to contribute their experience and expertise;
- (x) Urged the Members to create national mechanisms, such as a project steering group, to develop, as soon as possible, a national migration plan to table-driven code forms; requested the Secretary-General to develop and implement effective and economical means to promote the migration, including development and distribution of computer-assisted learning packages and roving experts visits to assist National Meteorological Centres (NMCs) in solving on-site technical problems; invited NMHSs and relevant organizations to contribute expertise and material to facilitate those efforts;
- (xi) With a view to achieving a more effective protection of radio-frequency allocations, urged Members to ensure that their respective national Radiocommunication Authorities were fully aware of the impact of relevant issues for meteorological operations and to seek their support, and to participate in related national, regional and global radiofrequency activities, especially for the preparation of the next World Radiocommunication Conference in 2007;
- (xii) Noting the activities of WMO, in coordination with the United Nations International Strategy for Disaster Reduction (ISDR) and the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO), in developing a Tsunami Warning System in the Indian Ocean, fully endorsed the prominent role of the GTS, and eventually the WIS, for supporting the collection, exchange and distribution of information related to the Tsunami Warning System, within a multi-hazard approach, in the Indian Ocean and for other areas at risk;
- (xiii) Requested the Secretary-General to facilitate the required interregional coordination and to assist Members concerned in strengthening the national and regional GTS components, as required, and in benefiting from international assistance;
- (xiv) Requested CBS to study the upgrade of the GTS, possibly through multilateral approaches, to meet NMHSs requirements for exchanging seismic data, and to identify and address in a timely manner the requirements for specific GTS/WIS procedures for early warning systems, in particular for the Tsunami Warning System;
- (c) As regarded the Global Data-processing and Forecasting System (GDPFS) programme, the Council:
- (i) Agreed that in the development of forecasting standards, further work was required to develop, refine and provide guidance on those standards and practices to Members as well as for maintaining that guidance up-to-date, for the full range of forecasting functions and processes;
- (ii) Encouraged NMHSs to use the recommended practices for short-range forecasting (general summary paragraph 5.3.4 in the *Abridged Final Report with Resolutions and Recommendations of the Thirteenth Session of the Commission for Basic Systems* (WMO-No. 985)), evaluate their applicability, and refine and apply them according to their respective needs and capabilities;
- (iii) Noting that the Japan Meteorological Agency was offering to operate a Lead Centre for ensemble prediction system (EPS) verification, agreed to incorporate the statement of responsibility of such a Lead Centre into the *Manual on the GDPFS* (WMO-No. 485) (as part of Recommendation 6 (CBS XIII));
- (iv) Agreed that, with respect to the Demonstration Project on Severe Weather Forecasting developed with the goal to enhance the use of NWP products, the implementation of a project of one-year duration should consider, in particular, participation by developing countries, and begin in 2005;
- (v) Agreed that Global Producing Centres (GPCs) for Long-Range Forecasts (LRF) should be officially designated, and that for that purpose, the minimum list of LRF products, endorsed at CBS-Ext.(02), should be included in Appendix II-6 in the *Manual on the GDPFS* (WMO-No. 485) (as part of Recommendation 6 (CBS-XIII));
- (vi) Requested all GPCs for LRF to provide their verification results according to the WMO Standardized Verification System to the Lead Centre for LRF Verification, for evaluation and publication on the Lead Centre Web site;
- (vii) In connection with the provision of location-specific NWP products to developing countries as an incentive to enhance support for the GOS, requested CBS to consider ways to take the matter forward under the WWW Programme so that the anticipated benefits, as described in **Annex II** to this report, could be fully realized;
- (d) As regarded the WWW System Support Activity programme, the Council requested the Secretary-General to re-allocate in 2005 some of the resources allotted to that programme in order to facilitate the publication of additional technical guidance material related to the WMO Quality Management Framework (QMF) (see also agenda item 8.4);
- (e) Further to the QMF, the Council agreed with proposals of the thirteenth session of RA II and the fourteenth session of RA IV to embed QMF-related capacity-building

lectures in technical conferences and other suitable training events planned in the Regions, and to continue the development and publication of guidance material;

- (f) As regarded the provision of information on the operation of the WMO *Weather Reporting* (WMO-No. 9, Volumes A, C1 and C2) to Members, the Council requested the Secretary-General to proceed with phasing out completely the paper publications by the end of 2005, using instead electronic formats, CD-ROMs and the Web for publications and dissemination;
- (g) As regarded the Emergency Response Activities (ERA) programme, the Council:
 - (i) While emphasizing that the nuclear aspects of the ERA programme be maintained, requested CBS to continue to develop the expansion of the scope and capabilities of the programme of atmospheric transport modelling for use in non-nuclear emergencies, in particular chemical accidents and hazardous situations due to smoke from large wild-land fires, in coordination with the United Nations Environment Programme (UNEP) and United Nations/Office for the Coordination of Humanitarian Affairs (UN/OCHA), and other relevant international organizations;
 - (ii) Recalling the formal working arrangements with the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) concluded in 2003, requested CBS and the Secretary-General to continue to pursue access to CTBTO data and information to enhance WMO Programmes, and particularly and urgently those that supported early warnings of potential disasters (e.g. volcanic eruptions, earthquakes/tsunamis).

3.1.2 INSTRUMENTS AND METHODS OF OBSERVATION PROGRAMME; THE REPORT OF THE PRESIDENT OF CIMO (agenda item 3.1.2)

3.1.2.1 The Executive Council noted the report of the president of the Commission for Instruments and Methods of Observation (CIMO) and agreed that the understanding of the Earth's climatic system, climate variability and climate change would greatly benefit from homogeneous data measured all over the world. It recalled the CIMO-XIII (2002) Plan for WMO Intercomparisons to be implemented within available financial resources and involving some support from the private instrument sector.

3.1.2.2 Recalling the significance of the intercomparisons for all WMO Programmes, the Council:

- (a) Agreed that a solution should be found to provide partial support for the future intercomparisons from the regular budget thus avoiding undue dependence on extrabudgetary resources from manufacturers;
- (b) Noting the significant achievements in the WMO Intercomparison of High Quality Radiosonde Systems (February 2005, Mauritius) and WMO Intercomparison of Rainfall Intensity Gauges (France, Italy, Netherlands, September 2004–June 2005), appreciated support and contributions provided by several Members and relevant instrument manufacturers in conducting the intercomparisons; requested the Secretary-General to finalize the

results as soon as possible and make them available to Members, private instrument sector and scientific community, and to initiate follow-up actions aimed at synchronizing the current practices and plans of the manufacturers concerned with the results of the intercomparisons, such as the omission of pressure sensors in selected global positioning system (GPS) based radiosonde designs (in order to save the cost);

- (c) Requested the Secretary-General to consider implementation of the WMO intercomparisons, which were essential for the WMO Programmes demanding accurate and homogenous measurements in accordance with the CIMO Plan, namely, the WMO Field Intercomparisons of Rainfall Intensity Gauges and the WMO Combined Intercomparison of Thermometer Screens/Shield in conjunction with Humidity Measuring Instruments;
- (d) Requested the Secretary-General to facilitate organization of intercomparisons in different climatic regions. That would assist in identifying appropriate instruments for those climatic regions and specific conditions, e.g. suitable pressure and other sensors for use under hurricane conditions;
- (e) Appreciated the offer of Canada to participate in, and possibly host, the WMO intercomparison in the Arctic;
- (f) In recognizing the needs for intercomparisons of other meteorological instruments, such as those for measuring visibility, solid precipitation and small weather radars, hydrological instruments for measurements of stream flow and water level, requested CIMO, in collaboration with the Commission for Hydrology (CHy) and the Association of the Hydrometeorological Equipment Industry (HMEI), to include them in the future plans for intercomparisons; it also requested CIMO to address the issue of standardization of instrument siting during the intercomparisons;
- (g) Recognized that Member countries should develop new instruments and methods of observation with regard to atmospheric gases, greenhouse gases, atmospheric physics and composition, aerosols, solid precipitation, visibility and biological parameters, and carry out actively intercomparison experiments of those instruments in order to expand their operational fields and enhance their association with GEOSS. It requested CIMO to encourage research and development on those new instruments.

3.1.2.3 The Council, noting that accurate and timely measurements were a prerequisite for successful natural disaster prevention and mitigation, requested the Secretary-General to strengthen the capacities of Members and those of the Regional Instrument Centres (RICs) in observing practices and calibration of instruments through training workshops, such as Training Workshops on Upper-Air Observations and Training Workshops on Instrument Calibrations to be conducted in all Regions. The Council also requested the Secretary-General to continue the evaluation of the RICs and to develop proposals to strengthen their operational and capacity-building functions and services. It also requested that a survey be carried out to ascertain the capacity of Members' NMHSs in the areas of calibration and maintenance.

3.1.2.4 Referring to the successful collaboration of WMO and COST-720 in the WMO Intercomparison of High Quality

Radiosonde Systems, the Council requested the president of CIMO to seek active collaboration with relevant international programmes and organizations, such as the European Meteorological Services Network (EUMETNET), the European Cooperation in the Field of Scientific and Technical Research (COST), the International Bureau of Weights and Measures (BIPM) and the International Organization for Standardization (ISO) on CIMO activities.

3.1.2.5 Significant progress was made in updating the WMO *Guide to Meteorological Instruments and Methods of Observation* (WMO-No. 8). In that regard, the Council requested the Secretary-General to publish the electronic version in English on a CD-ROM and the WMO Website in mid-2006 and to print a hardcopy version in late 2006. The Council also requested the Secretary-General to arrange for the translation into other WMO languages, as decided by Fourteenth Congress during the course of 2007.

3.1.2.6 The Council recognized the need for an on-line access to the new version of the World Meteorological Instrument Catalogue (version 2005) and requested the Secretary-General, in collaboration with the China Meteorological Administration (CMA), to provide Web access to the Catalogue. Underlining the importance of the Catalogue for Members, the Council asked the Secretary-General, in collaboration with CMA, to keep it up-to-date.

3.1.2.7 The Council, emphasizing the need for close collaboration between GEO, CBS and CIMO, noted that CIMO had appointed a GEO coordinator. It requested the Secretary-General to inform Members regularly of new developments and changes concerning new observing systems.

3.1.2.8 The Council noted the statement of the observer of HMEI in which he offered information on the discontinuation of the Vaisala RS80/RS90 400 MHz radiosondes. He pointed out that there were various solutions to that problem and encouraged WMO Members to consider the options offered by several radiosonde manufacturers. In doing so, the Members should also take into consideration the long-term cost of the consumables and not just the short-term cost of a ground station. It was suggested that WMO Members should consult the Web-based HMEI Member Products Catalogue for information.

3.1.3 TROPICAL CYCLONE PROGRAMME (agenda item 3.1.3)

3.1.3.1 The Executive Council recognized that one of the most effective measures for disaster preparedness was a well-functioning early warning system that delivered accurate and user-friendly information in a timely manner. To that effect, and within the framework of the Tropical Cyclone Programme (TCP), the Council noted the outcome of the TCP Expert Meeting on Effective Early Warnings of Tropical Cyclones (Kobe, Japan, January 2005) and endorsed the following targets of the meeting for:

- (a) All tropical cyclone Regional Specialized Meteorological Centres (RSMCs) and Tropical Cyclone Warning Centres to strive to increase the accuracy of track and intensity forecasts of tropical cyclones by 10 per cent by 2015. The Council noted the difficult challenge of attaining the intensity goal based on current research;
- (b) All tropical cyclone RSMCs, Tropical Cyclone Warning Centres and concerned Members of tropical cyclone

regional bodies to issue probabilistic forecasts of tropical cyclones up to five days by 2015;

- (c) Members of tropical cyclone regional bodies to educate stakeholders annually on proper interpretation of tropical cyclone forecasts, advisories, warnings and other meteorological and hydrological information; and
- (d) Members of tropical cyclone regional bodies to ensure dependable and effective dissemination of tropical cyclone nowcasts, forecasts, advisories, watches and warnings in real-time to decision makers including emergency managers, media, the general public and other stakeholders.

3.1.3.2 The Council stressed the need for an enhanced training programme for tropical cyclone and storm surge forecasters in operational conditions aimed at further upgrading operational capabilities of NMHSs. It urged all tropical cyclone RSMCs and Tropical Cyclone Warning Centres to enhance their training activities and especially on the attachments of operational forecasters to their centres during the cyclone season.

3.1.3.3 The Council stressed the need to organize regional and international workshops on probabilistic tropical cyclone forecasts for operational forecasters in order for them to issue probabilistic forecasts of tropical cyclones up to five days by 2015 (see general summary paragraph 3.1.3.1(b)), to allow appropriate public response to cyclone warnings. It requested the Secretary-General to assist the International Association of Emergency Managers (IAEM) in the preparation of global guidelines for education and training in disaster emergency communities for use of probabilistic forecasts of tropical cyclones.

3.1.3.4 The Council noted the importance of a proper coordinating mechanism among tropical cyclone forecast producers and users, including disaster management communities in their respective regions.

3.1.3.5 Due to the recent tsunami disaster in the Indian Ocean and WMO's contributory role in the implementation of a multi-hazard early warning system, the Council urged Members of the Panel on Tropical Cyclones of the WMO/United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) to seek the early implementation of the IOC/WMO/UNESCO International Hydrological Programme Project on Storm Surge Disaster Reduction in the Northern Part of the Indian Ocean and requested the Secretary-General to make every effort to assist the Panel Members in that endeavour.

3.1.3.6 The Council urged the Secretary-General to undertake a thorough study on the economic and social impacts of tropical cyclones with emphasis on the assessment by end-users of relevant weather services in all the tropical cyclone-affected areas using as a basis the study carried out in the Philippines in 2004.

3.2 WORLD CLIMATE PROGRAMME (agenda item 3.2)

3.2.1 CLIMATE COORDINATION ACTIVITIES; THE REPORT OF THE EXECUTIVE COUNCIL ADVISORY GROUP ON CLIMATE AND ENVIRONMENT (agenda item 3.2.1)

OVERALL COORDINATION OF THE COMMISSION FOR CLIMATOLOGY (CCI)

3.2.1.1 The Executive Council noted that CCI held the second meeting of its Management Group in Geneva, from

31 January to 2 February 2005, and that the fourteenth session of CCI would be held in Beijing, China (3-10 November 2005). The Council requested the Secretary-General to arrange for the finalization of the editing process of the *Guide to Climatological Practices* (WMO-No. 100) before CCI-XIV and expedite its publication.

3.2.1.2 The Council supported the organization of the Technical Conference on Climate as a Resource (Beijing, China, 1-2 November 2005) to enhance the participation of delegates from least developed and developing countries at CCI-XIV and suggested that extrabudgetary resources be mobilized for the organization of the Technical Conference by seeking sponsorship from donor agencies. The Council noted with appreciation the contributions made by a number of Members and other partners towards the organization and hosting of the event.

INTERNATIONAL STRATEGY FOR DISASTER REDUCTION (ISDR)

3.2.1.3 The Council noted the importance of active participation of the World Climate Programme (WCP) in the Inter-Agency Task Force on ISDR and its Working Group on Climate Change and Disaster Risk Reduction and the opportunity that that could provide to develop more user-driven climate services in support of climate change and disaster risk reduction. The Council further noted the involvement of WCP in thematic clusters of the Second World Conference on Disaster Reduction (Kobe, Japan, 18-22 January 2005) and requested the Secretary-General to arrange for continued support and participation of WCP in the implementation and follow-up to the outcome and Framework for Action of the WCDR-II in Kobe and promote the application of climate modeling and forecasting, communication tools and early warning as far as climate disaster management was concerned.

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

3.2.1.4 The Council noted that WMO participated in the Conference of the Parties (COP)-10 to the UNFCCC (Buenos Aires, Argentina, 6-17 December 2004) and the twenty-first session of the Subsidiary Body for Scientific and Technological Advice (SBSTA). Recognizing the emphasis of COP-10 on adaptation to climate change and commitment of countries to take measures on that, the Council endorsed initiatives on adaptation to climate variability and change and urged the Secretary-General to:

- (a) Ensure that WMO and its Members played a continuing role in the relevant subsidiary bodies of the UNFCCC;
- (b) Support development of capacities both in human resources and infrastructure of NMHSs, especially developing and least developed countries, to enable them to carry out the monitoring, data management and analysis activities that supported adaptation to climate change;
- (c) Facilitate, through relevant mechanisms, national and regional efforts, related to adaptation to climate change including development of models and climate change scenarios, and building capacity for seasonal to interannual and, possibly decadal climate forecasting in support

of socio-economic development, in particular through food, energy and water security;

- (d) Enhance interaction with other international organizations and United Nations agencies that worked on adaptation to climate change and to inform those agencies on a regular basis of WMO's ongoing activities relevant to those programmes and activities;
- (e) Urge Members to implement Global Climate Observing System (GCOS) Regional Action Plans and facilitate mobilization of the resources required to do so.

UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION (UNCCD)

3.2.1.5 The Council noted that the UNCCD Secretariat, in cooperation with WMO, organized a Technical Workshop on Drought Preparedness for the Balkans within the context of the UNCCD (Poiana Brasov, Romania, 25-26 October 2004). The Council expressed its satisfaction with the Workshop recommendation that a Balkan subregional Drought Management Centre be established for early warning of drought events, assessment of their severity and mitigating their damages.

3.2.1.6 The Council noted the United Nations General Assembly Resolution declaring 2006 as the International Year of Deserts and Desertification. In that regard, the Council:

- (a) Suggested that droughts and desertification be featured prominently in the publications and press releases in connection with the World Meteorological Day 2006 on "Preventing and mitigating natural disasters";
- (b) Endorsed the proposal by WMO to organize an International Workshop on Climatic Factors in Desertification in 2006;
- (c) Supported the proposal to bring out an information brochure on drought monitoring: progress and challenges;
- (d) Suggested that posters and video material on specific objectives highlighting the weather and climate aspects in droughts and desertification be brought out;
- (e) Requested the Secretary-General to seek CHF 30 000 from the extrabudgetary resources in the second biennium to undertake the above activities.

CONVENTION ON BIOLOGICAL DIVERSITY (CBD)

3.2.1.7 The Council noted that 13 recommendations on a range of substantive, strategic, and scientific and technical issues were adopted at the tenth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA-10) to the CBD which was held in Bangkok, Thailand, from 7 to 11 February 2005.

3.2.1.8 In particular, the Council noted that SBSTTA-10 adopted terms of reference for the Ad Hoc Technical Expert Group (AHTEG) on Synergies among activities related to biodiversity, desertification and climate change. Having considered that the mandate of the AHTEG was to undertake a supplementary assessment of the integration of biodiversity considerations into implementation of activities on adaptation to climate change and prepare advice for planning and/or implementing activities to address that issue, the Council requested the Secretary-General to ensure the active participation of WMO in the AHTEG.

EXECUTIVE COUNCIL ADVISORY GROUP ON CLIMATE AND ENVIRONMENT (EC-AGCE)

3.2.1.9 The Council noted that EC-AGCE held its sixth session in Geneva, from 31 March to 1 April 2005. It further noted that the Group had so far reviewed the overall coordination mechanism of climate activities at the internal, intra-agency and inter-agency levels. The Council observed that in terms of strategic approach, WMO was well aware of the value of partnership building as defined in Strategy 8 in the Sixth WMO Long-term Plan (6LTP) which encouraged more effective work with international partners, other relevant organizations, academia, the media and the private sector. The Council also took note that the fifth session of EC-AGCE had developed a discussion paper for WMO leadership in climate and environment and had made six major recommendations that were considered by the fifty-sixth session of the Executive Council. The Council was further informed that the sixth session of EC-AGCE had made 40 recommendations that had been fully reflected in the Final Report of the meeting. In that context, the Council requested the Secretary-General:

- (a) To promote further WMO's participation in activities related to adaptation to climate change and send circular letters to Ministries of Foreign Affairs of Member countries to keep them updated of WMO's role in world climate and climate change activities;
- (b) To encourage strongly all WMO Regions to implement RCCs, and in particular, to provide a brief summary of the recent progress in efforts to establish RCCs in Regions II, IV, V, VI and indicating the range of RCC structures and activities envisaged, and to provide those in a letter to presidents of RAs I and III with encouragement to use the guidelines;
- (c) To explore extrabudgetary financial contributions to the Conference on Living with Climate Variability and Change: Understanding the Uncertainties and Managing the Risks (Espoo, Finland, 17-21 July 2006), which would require extensive resource mobilization action;
- (d) To ensure that in situ observing programmes remained a high priority for action; and that GCOS and GEO work closely with each other and with other major observing programmes (in research networks, WWW, etc.) to prevent duplication of effort and to meet the needs of the broad climate community;
- (e) To coordinate further the World Climate Research Programme (WCRP) activities (i.e. the Coordinated Observation and Prediction of the Earth System (COPES)) on observations and data needs with all relevant WMO and other observing programmes, including GCOS, GEO and WWW, to maximize resources and synergy.

3.2.1.10 The Council was informed that, following the request of Fourteenth Congress, the Secretary-General had established the Ad Hoc Exploratory Committee on the Third World Climate Conference (WCC-3). That Committee met in Geneva in May 2005 and produced a report on a possible WCC-3. The Council welcomed with appreciation the report of the Ad Hoc Exploratory Committee and its recommendation that WMO consider the development of a WCC-3 on the basis outlined in its report. The report proposed scientific advances

in seasonal to interannual, and possibly decadal, forecasting as an overarching theme for the Conference.

3.2.1.11 Some voiced support for the proposed theme, citing the socio-economic benefits to be gained and its relevance to policy makers. Many voiced their support for the idea of WMO organizing such a Conference and establishing an organizing committee to coordinate relevant matters with United Nations agencies and other international entities at different levels and facilitate their participation as well as financial contribution in the Conference. However, a number were not ready to decide on holding a WCC-3, because the scope, outcomes and resources for it warranted further clarification and elaboration, and relevant international organizations had not been consulted.

3.2.1.12 The Council agreed on the importance of communicating widely on the scientific advances in seasonal to interannual, and possibly decadal, forecasting through a World Climate Conference, and decided:

- (a) To request the Secretary-General to establish a provisional organizing committee to develop a meeting plan for WCC-3, working on the basis of the recommendation of the Ad Hoc Exploratory Committee on WCC-3, to develop proposals on the scope, science programme, content of high-level segment, timing and budget of WCC-3;
- (b) To request the Secretary-General to consult with relevant international bodies including the Food and Agriculture Organization of the United Nations (FAO), IPCC, the United Nations Development Programme (UNDP), UNEP, UNESCO, UNFCCC and the World Health Organization (WHO) in developing proposals and potential partnership in WCC-3;
- (c) To request the Secretary-General to conduct a round of consultations with the Members regarding the meeting plan for WCC-3;
- (d) To request the Secretary-General to submit the costed meeting plan developed by the provisional organizing committee to the fifty-eight session of the Executive Council for review and decision.

3.2.1.13 The Council further recognized that climate risk management was a critical issue that required coordination between technical commissions and WMO Programmes including WCP, and requested the Secretariat to provide an inventory of actions relevant to disaster prevention that were currently being taken by WMO Programmes for clear recognition of cross-cutting activities on disaster prevention and mitigation.

3.2.2 WORLD CLIMATE PROGRAMME, INCLUDING THE REPORT OF THE PRESIDENT OF CCI (agenda item 3.2.2)

OBSERVING REQUIREMENTS FOR STANDARDS FOR CLIMATE

3.2.2.1 Noting the importance of automating the creation and reporting of the CLIMAT and CLIMAT TEMP messages, the Executive Council requested the continuation of the GCOS/WCP collaboration for the organization of training workshops on the use of CLIMAT and CLIMAT TEMP software and its distribution to Members. It also requested that the software be posted on the WMO ftp server for direct download.

CLIMATE WATCH SYSTEM

3.2.2.2 The Council considered the recommendation of the Expert Team on Climate Watches and encouraged WMO to set up an appropriate mechanism to promote the establishment of Regional Climate Watch Systems for large-scale phenomena as well as for national systems that would issue warnings at the national level. The Council also encouraged Members to develop capacity-building on climate watches in the different regions by organizing training seminars that included techniques of climate monitoring and prediction, understanding large-scale phenomena and their influence on local/regional climate, and developing appropriate climate indices.

CLIMATE ANALYSIS AND MONITORING TECHNIQUES (INCLUDING CLIMATE CHANGE DETECTION)

3.2.2.3 The Council requested the translation into other WMO official languages of the ClimDex user's guide.

3.2.2.4 The Council noted that regional workshops on climate indices were organized in Regions IV (Kingston, Jamaica), I (Casablanca, Morocco) and II (Alanya, Turkey) and that more workshops are planned in other Regions. The Council urged Members to provide daily records to build the data sets needed for the calculation of indices.

CLIMATE SYSTEM MONITORING

3.2.2.5 The Council noted the publication of the *Global Climate System Review 2003* (WNO-No. 984) and encouraged regions to explore ways to provide regionally-focused climate reviews on an annual basis through the regional centres to be established.

3.2.2.6 The Council recognized the need to identify Focal Points at the national and regional levels who would be responsible for Climate Change Detection Initiatives. In that connection, NMHSs might be called upon to establish Climate Change Monitoring and Detection units/sections within their Services.

DATA SETS

3.2.2.7 The Council urged Members to provide complete and reliable data sets with corresponding metadata for the final version that would be published.

DATA RESCUE (DARE), DIGITIZATION AND DATA EXCHANGE

3.2.2.8 The Council encouraged Members to support, through the Voluntary Cooperation Programme (VCP) and other extrabudgetary resources, the high priority DARE projects including the rescue of data from obsolete seven- and nine-track tapes.

CLIMATE DATABASE MANAGEMENT SYSTEM (CDMS)

3.2.2.9 The Council recalled the request of Fourteenth Congress for climate database management material and manuals, and endorsed CCI's plans for the relevant Implementation Coordination Team to develop World Climate Data and Monitoring Programme (WCDMP) Guidelines on climate atabase Management. The Council also recalled and emphasized the importance of organizing climate database management training workshops in all regions to smooth the transition from climate computing (CLICOM) to modern multitier database management systems. The Council urged

Members to support developing countries, particularly Cambodia and Laos, to accelerate the transition to the new systems.

3.2.2.10 The Council noted the Progress/Activity Report on Implementation of the World Climate Applications and CLIPS (WCAC) Division of the WCP and decided as follows:

- (a) As regarded improved understanding and use of climate information and prediction products for the socio-economic benefit of Members and user groups, the Council requested the Secretary-General:
- (i) To support enhanced collaboration between WMO and other United Nations agencies (including UNEP, WHO, ISDR, UNDP, UNESCO, etc.) and relevant institutions to improve understanding of their climate requirements, to support development of useful climate products and to foster effective climate applications particularly for the health, water resources, renewable energy (e.g. wind and solar), disaster prevention and mitigation, and agricultural sectors;
 - (ii) To explore the development of a WMO database of extreme events to support evaluation of climate extremes in all regions over time (through the DPM Programme);
 - (iii) To work with relevant organizations and programmes at all levels in developing a training programme on biometeorology to support climate health applications, particularly in developing countries;
 - (iv) To facilitate efforts by NMHSs and relevant collaborating partners to monitor, coordinate and assess the Earth's climate system;
 - (v) To urge all Members to contribute to expert teams and to the development of user-oriented products and information, including brochures, on the role of climate in various sectors;
 - (vi) To support the work undertaken by different expert teams to develop or revise various guidelines;
- (b) As regarded active participation of experts in future CCI meetings and international conferences concerned with climate applications, the Council requested the Secretary-General to continue to support the participation of experts, especially those from developing and least developed countries, in meetings and conferences that contributed to building capacity in climate prediction and applications and enhanced understanding of the benefits of applying climate information and products in various sectors;
- (c) As regarded improved Member's and user's understanding of the benefits and limitations of climate predictions through CLIPS and other relevant forums, the Council noted the importance of the Regional Climate Outlook Forum (RCOF) process in the development of Members' capacity in climate monitoring, assessment and predictions, in the production of information and products tailored to users' needs, and in facilitating vital feedback from user groups to climate scientists on their work. It further noted the success of the first Forum on Regional Climate Monitoring-Assessment-Prediction for Asia (FOCRAII), held in Beijing on 7-9 April 2005. The Council requested the Secretary-General:

- (i) To assist NMHSs and regional associations in the pursuit of funding from local sectors and/or international funding agencies to support initiation or continuation of RCOF-related activities;
 - (ii) To encourage the expansion of RCOFs into new regions/subregions, to urge regions to incorporate RCOF activities as a function of RCCs, and to promote opportunities for training, collaboration between relevant institutions, work-exchange programmes, and participation of CLIPS Focal Points in expert meetings and conferences for capacity-building;
 - (iii) To consider as a priority making a substantial contribution and to facilitate the mobilization of extrabudgetary funding and in-kind contributions to support logistical arrangements and participation of experts from developing countries in the WMO Conference on Living with Climate Variability and Change: Understanding the Uncertainties and Managing the Risks (Espoo, Finland, 17-21 July 2006). The Council noted with appreciation the offer made by Australia to support the Conference and urged other Members to follow suit;
- (d) As regarded the establishment of RCCs by interested regional associations, recognizing the need to involve all interested sectors and the need to use existing infrastructure, the Council recognized the recent progress made in RAs II and IV (and the ongoing activity in RAs V and VI) and requested the Secretary-General:
- (i) To urge RAs I and III to use the guidelines for the establishment of RCCs that appeared in the *Proceedings of the Meeting on Organization and Implementation of Regional Climate Centres* (WMO/TD-No. 1198, WCASP No. 62) and to identify requirements for, and capacity to, deliver RCC functions in their Regions;
 - (ii) To urge CBS and CCI to review and revise Volume I of the *Manual on the Global Data-Processing and Forecasting System* (WMO-No. 485), as required, to incorporate the terminology and functions of RCCs to support their designation under the Technical Regulations and to simplify the process for formal designation of RCCs;
 - (iii) To urge the WCP and the WWW to collaborate wherever possible on the development of RCCs and FWIS;
- (e) With respect to development of CLIPS activities, the Council noted the establishment of a new CCI Expert Team on *El Niño* Definitions and Indices and requested the Secretary-General:
- (i) To promote development of a strategy and common terminology for public communiqués on *El Niño* events;
 - (ii) To promote the benefits of regional cooperation prior to issuance of press releases;
 - (iii) To examine the feasibility of a single, globally-accepted standard WMO policy/approach on *El Niño* and *La Niña*, their evolution and prediction;
- (f) As regarded development of climate applications, the Council recognized the importance of the tourism sector to global and national economies, and requested the Secretary-General to support establishment of an expert team on climate and tourism by the fourteenth session of CCI (Beijing, November 2005).
- 3.2.3 GLOBAL CLIMATE OBSERVING SYSTEM** (agenda item 3.2.3)
- 3.2.3.1** The Executive Council thanked Professor Paul Mason, Chairperson of the GCOS Steering Committee, for his report on progress being made by the GCOS programme, especially the completion of the Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC and its submission to UNFCCC. Other activities included promoting the systematic improvement of the GCOS baseline networks; continuing progress in the Regional Workshop Programme; and mobilizing of resources including the development of a GCOS Cooperation Mechanism for system improvement.
- 3.2.3.2** The Council welcomed the completion of the GCOS Implementation Plan and expressed its appreciation for financial support from the USA, the UK and other Members for its development. It noted that many actions in the Plan involved WMO Programmes and technical commissions, as ‘Agents for implementation’ and gave its strong support for the implementation of those actions. The Council recognized that while GCOS itself did not fund network improvements, it provided a crucial framework under which Members, especially developing countries, could seek to improve their networks to meet GCOS requirements.
- 3.2.3.3** The Council welcomed the endorsement of the Implementation Plan by the UNFCCC Conference of the Parties through decision 5/CP.10 — Implementation of the global observing system for climate (Buenos Aires, December 2004). It noted that SBSTA had invited the GCOS Secretariat, in conjunction with the GCOS sponsoring agencies (WMO, IOC, UNEP, International Council for Science (ICSU)), to report to the SBSTA at its twenty-third session (November 2005) on how the actions identified in the Plan had been incorporated in the agencies’ own plans and actions.
- 3.2.3.4** The Council, emphasizing the strong link between the GCOS Implementation Plan and the “climate” societal benefit area of the GEOSS Plan, encouraged the continuation of the close cooperation between GCOS and the GEOSS initiative in the implementation of their respective Plans.
- 3.2.3.5** The Council welcomed the significant progress that had been made in implementing the GCOS baseline networks, in cooperation with the WWW, through voluntary contributions to the Climate Observing System Fund and the GCOS Cooperation Mechanism. It noted in particular the contributions of the USA in providing resources and support for a full-time GCOS implementation manager to coordinate revitalization activities, including the interim provision of consumables in some cases, as well as the support of several Members (Australia, New Zealand, UK, USA) in establishing a Pacific Islands GCOS regional programme. The Council furthermore welcomed the valuable contribution made by Germany in seconding a Junior Professional Officer to WMO to work at GCOS and encouraged other Members to consider similar support.
- 3.2.3.6** The Council welcomed the progress in the GCOS Regional Workshop Programme, which would complete its final workshop in late 2005 and the remaining Regional

Action Plans shortly thereafter. Recognizing the difficulty in mobilizing resources, the Council urged Members to consider ways to implement the priority projects in those Action Plans and invited GCOS to assist the regions in mobilizing resources to implement their Action Plans.

3.2.3.7 The Council noted with appreciation the substantial extrabudgetary resources contributed to date to support GCOS activities, including the Regional Workshop Programme and system improvements. It nevertheless recognized the continuing severe shortfall in funding needed to operate the GCOS Secretariat.

3.2.3.8 In that connection, the Council adopted **Resolution 3 (EC-LVII)**.

3.2.4 WORLD CLIMATE IMPACT ASSESSMENT AND RESPONSE STRATEGIES PROGRAMME (agenda item 3.2.4)

3.2.4.1 The Executive Council recognized the importance of the continued close collaboration and cooperation between WMO and UNEP within the World Climate Impact Assessment and Response Strategies Programme (WCIRP), and in particular in the work of the IPCC. The Council noted that WMO was represented in the twenty-third session of the UNEP Governing Council (Nairobi, Kenya, 21-25 February 2005) and that WMO, through its Members, continued to provide scientific and technical input to the UNEP Global Environmental Outlook publications. The Council further noted that the link to the WCIRP Web page on the WCP homepage had been activated jointly between the Atmosphere and Desertification Conventions Unit of UNEP and WCP of WMO.

3.2.4.2 The Council noted with appreciation UNEP's continuing support to the organization of the WMO Conference on Living with Climate Variability and Change: Understanding the Uncertainties and Managing the Risks, to be held in Espoo, Finland on 17-21 July 2006.

3.2.4.3 The Council, recalling WMO's long history of involvement in climate and energy matters, recognized the urgent need to strengthen interaction between WMO, UNEP, the World Bank and other relevant partners, particularly in the area of renewable energy.

3.2.4.4 As a follow-up to WCIRP activities, the Council requested the Secretary-General:

- (a) To promote interaction and cooperation with UNEP on activities of mutual interest, including regional and national actions related to climate variability and on adaptation to climate change and reduction of vulnerability, especially in the developing countries and small island developing States;
- (b) To encourage CCI to continue its work further in applications of climate as a resource for renewable energies and arrange for closer cooperation.

3.2.5 WORLD CLIMATE RESEARCH PROGRAMME (agenda item 3.2.5)

3.2.5.1 The Executive Council noted with approval the progress being made in the implementation of the WCRP. In particular, the Council endorsed fully the introduction of the new WCRP strategic framework for 2005-2015, called COPEs, with the stated aim to facilitate analysis and prediction of Earth system variability and change for use in an increasing range of practical applications of direct relevance,

benefit and value to society. The ultimate objective was to provide the soundest possible scientific basis for a predictive capability for the total climate system to meet society's needs, including an assessment of what was, and what was not, predictable on various temporal and spatial scales. Key research challenges were to: address the prediction problem as 'seamless' across all time-scales, from weeks to centuries; address prediction of the broader Earth system; and demonstrate the use and value to society of WCRP-enabled predictions. The Council recognized that close research collaborations would be needed with, in particular, the International Geosphere-Biosphere Programme and the International Human Dimensions Programme on the broader Earth system aspects, THORPEX on weather-related aspects, satellite agencies and numerical weather/climate prediction centres, and the global change System for Analysis, Research and Training (START) on developing-country involvement. Collaborations should also be actively pursued in applications, in particular with those involved with seasonal prediction, the other components of WCP, and the new DPM.

3.2.5.2 The Council emphasized that WCRP activities were fundamental for IPCC to make progress on the IPCC Fourth Assessment Report. WCRP-coordinated model evaluation and intercomparison projects were being used directly in the assessment. In particular, for the first time, WCRP had arranged for the global modelling predictions using IPCC emissions scenarios to be made available to researchers around the world, enabling the largest ever analysis of regional climate change and changes in extreme events. Also, issues raised in previous IPCC assessments had been addressed in WCRP activities, leading to improvements in climate models and the understanding of climate change.

3.2.5.3 Further points to emerge in the Council's discussion of the WCRP progress report included: recognition of the highly successful Climate and Cryosphere (CliC) First Science Conference, held at the China Meteorological Administration in Beijing in April 2005; the suggestion that a WCRP data information and management policy would be of value, especially for developing countries; the need to consider intraseasonal variability, predictability and prediction for monsoon systems; affirmation that the WCRP Climate Variability and Predictability (CLIVAR) and the Global Energy and Water Cycle Experiment (GEWEX) had endorsed the African Monsoon Multidisciplinary Analysis (AMMA) project and that the Secretary-General had designated the Director, Regional Office for Africa, assisted by the WMO Programme Manager for North, Central and West Africa, to represent WMO on the International Governing Board for AMMA.

3.3 ATMOSPHERIC RESEARCH AND ENVIRONMENT PROGRAMME (agenda item 3.3)

AWARDS

WMO RESEARCH AWARD FOR YOUNG SCIENTISTS

3.3.0.1 Based on the recommendation of its Selection Committee, the Executive Council conferred the 2005 WMO Research Award for Young Scientists upon Mrs Nedjelika Zagar (Sweden) for the paper entitled "Assimilation of equatorial waves by line-of-sight wind observations", published in

the *Journal of the Atmospheric Sciences*, Volume 61, Issue 15, 2004 and Mr Xiao Cunde (China) for the paper entitled "Sea level pressure variability over the southern Indian Ocean inferred from a glaciochemical record in Princess Elisabeth Land, east Antarctica", published in the *Journal of Geophysical Research*, Volume. 109, D16101, 2004.

3.3.0.2 The Council re-established its Selection Committee to consist of Messrs M.A. Rabiolo (chairperson), N.F. Ouattara, J. Lumsden and D.F. Gonzalez Cadarso.

UNITED ARAB EMIRATES (UAE) PRIZE FOR EXCELLENCE IN ADVANCING THE SCIENCE AND PRACTICE OF WEATHER MODIFICATION

3.3.0.3 The Council noted with appreciation that on the recommendation of the international evaluators committee comprised of world-known prominent scientists from Canada, China, Russia, Serbia, South Africa and the USA, the UAE Prize for Excellence in Advancing the Science and Practice of Weather Modification, established by the UAE in collaboration with WMO, was conferred to the following winners:

- (a) The South African National Precipitation Research and Rainfall Enhancement Programme (Graeme Mather, Deon Terblanche, Francois Steffens, Lizelle Fletcher and Andre Gorgens);
- (b) Thomas J. Henderson (Atmospherics Incorporated, Fresno, California, USA);
- (c) Bernard Silverman (Englewood, Colorado, USA);
- (d) Magomet T. Abshaev (High Mountain Geophysical Institute of ROSHYDROMET Nalchik, Russian Federation) with George Sulakvelidze, Ivan Burtzev, Lyudmila Fedchenko, Musabi Jekamuhov, Ali Abshaev, Boris Kuznetsov, Aminat Malkarova, Ahmat Terbuev, Pavel Nesmejanov, Ildar Shakirov and Georgy Shevela;
- (e) The Chinese Institute of Weather Modification (Meteorological Academy of Sciences, China Meteorological Administration);
- (f) Petjo Simeonov with Peter Konstantinov, Petko Boev and Rangel Petrov (Cloud Physics and Weather Modification team of the National Institute for Meteorology and Hydrology of the Bulgarian Academy of Sciences);
- (g) William L. Woodley with Daniel Rosenfeld (Woodley Weather Consultants, Littleton, Colorado, USA);
- (h) Peter Hobbs with Arthur Rangno (University of Washington, Seattle, USA).

3.3.0.4 The Council expressed deep appreciation to the Department of Water Resources Studies, UAE Ministry of Presidential Affairs which generously offered the Prize. It was emphasized that the Prize would stimulate international efforts for advancing the knowledge in the field, which was of great importance for satisfying the need for water under the increasing shortage of fresh water in many regions of the world.

3.3.1 ATMOSPHERIC RESEARCH AND ENVIRONMENT PROGRAMME, INCLUDING THE REPORT OF THE PRESIDENT OF CAS (agenda item 3.3.1)

3.3.1.1 The Executive Council noted with appreciation the in-depth report of the president of CAS, presented by Mr A. Frolov, vice-president of CAS, and the progress in the implementation of the Atmospheric Research and Environment

Programme (AREP) as reported by the Secretary-General. The Council noted the continuous efforts of CAS to sustain the implementation of, and to develop further, AREP as a comprehensive and credible programme-supporting environmental prediction research capable of addressing major societal challenges such as reduction and mitigation of natural disasters and environmental change and to enhance Member's predictive capabilities. To that end, CAS was proactive in fostering its cooperation with other technical commissions and in developing multidisciplinary research, across the AREP component programmes, and with growing involvement of the WWW, WCRP, GCOS and other Programmes. CAS was responsive and supportive to all intercommission groups supporting cross-cutting programmes and activities such as with DPM, IPY, WIS and QMF.

3.3.1.2 With respect to a number of particular issues brought to the attention of the Council, it provided guidance and recommendations, and called for actions including those concerning other Programmes and resources involved in the implementation of AREP, as provided below.

3.3.2 GLOBAL ATMOSPHERE WATCH, INCLUDING SUPPORT TO OZONE, OTHER ENVIRONMENT-ORIENTED CONVENTIONS, AND IGACO (agenda item 3.3.2)

3.3.2.1 The Council supported the initiatives of CAS, along with regular preparation and distribution of Antarctic Ozone Bulletins, to develop WMO advisories on (a) other ozone depletion phenomena such as the Arctic ozone depletion; (b) the state of recovery of global ozone as reduction of ozone-destroying halocarbons and global warming occurred; and (c) an annual WMO bulletin on atmospheric greenhouse gases. The Council requested the Secretary-General to facilitate those important developments, which would strengthen further the WMO leading role in the implementation of the Vienna Convention, and support the UNFCCC and the decision-making role on other environmental issues.

3.3.2.2 The Council noted that there was a growing awareness at the policy level that air quality in populated megacities and regions was affected by hemispheric transport of pollution from region to region; that GAW had extensive experience supporting long-range transport and modelling research since 1989; and that GAW played an important role in the European Cooperative Programme for the Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP). In that respect, the Council endorsed the involvement of WMO in new initiatives under the United Nations Economic Commission for Europe (UN/ECE) Convention on Long-range Transboundary Air Pollution and, in particular, the participation of the Global Atmosphere Watch (GAW) in the new UN/ECE Task Force on Hemispheric Transport of Air Pollution, in cooperation with the other agencies involved in environmental issues.

3.3.2.3 The Council shared the concern of CAS on the utmost need of long-term commitments by Members to protect key GAW infrastructure facilities and stations from the uncertainties of short-term project funding. It recalled that GAW facilities and capacity-building were mainly supported by Members and partner organizations in kind, and from extrabudgetary sources through the trust funds (about 40 per cent of the

total GAW budget). The Council called on Members to develop products and services based on GAW data as a part of the process of securing a broader and longer-term funding base. GAW was assigned responsibility for systematic global measurements developed by GCOS of the essential climate variables such as greenhouse gases, ozone and aerosols in the implementation of the global observing system for climate in support of UNFCCC.

3.3.2.4 The Council further agreed with CAS that GAW needed to address the following challenges: requirements of environmental security and environmental conventions through the Integrated Global Atmospheric Chemistry Observations (IGACO); the role of GAW in IGACO and hence GEOSS; the interdisciplinary nature of GAW activities; strengthening and development of aircraft and ground-based remote sensing in GAW; and real-time delivery of data of known quality for better forecasting of extreme weather and air quality events. The Council therefore requested the Secretary-General to appeal to funding agencies and encouraged Members to renew commitments vital for GAW and to offer support for IGACO implementation.

3.3.2.5 Recognizing the significant progress in the development of GAW facilities, the Council noted particular needs and, following the CAS recommendations, urged Members to undertake the following actions:

- (a) To submit data promptly to relevant GAW World Data Centres (WDCs) and thus support GAW efforts to organize data delivery of selected variables in real-time for use in improved weather and air quality prediction;
- (b) To update routinely information in the GAW Station Information System (GAWSIS) to allow monitoring of the status of the GAW network including data submission to the five WDCs;
- (c) To consider establishing a Central Calibration Facility for Ultraviolet as well as regional calibration facilities such as those provided by the United States;
- (d) To support the establishment of a World Calibration Centre for Aerosol Chemistry;
- (e) To maintain support for existing GAW stations and to support efforts to fill monitoring gaps in Asia, Central America, South America and Africa through twinning partnership, hardware donations and contributions to WMO/GAW trust funds dedicated specifically to that task.

3.3.2.6 Noting further the CAS concern for the lack of an appropriate infrastructure for global radiation observation supported by the GAW World Radiation Data Centre hosted by Russia and noting the programmatic gap between the global monitoring and user community relevant to WWW and WCRP, the Council requested CAS and CBS to prepare a proposal to be considered at the next session of the Council.

3.3.2.7 With respect to the GAW Urban Research Meteorology and Environment (GURME) project, the Council emphasized the importance of CAS efforts in developing capabilities to provide air quality forecasts for urban environments, and in demonstrating, through the GURME multi-agency projects, the mechanisms for collaboration between NMHSs and other groups such as environmental and health organizations. The Council recognized that GURME was an important element of IGACO, linking air quality forecasting with a user

community and promoting assimilation of real-time GAW data in forecasting. The Council expressed its satisfaction with GURME's activities coupled with CCI's urban climatology and WWRP. The Council recommended an extension of the GURME scope to include application of remote sensing in urban areas.

EARTH SYSTEM PREDICTION AND ENHANCEMENT OF PREDICTIVE CAPABILITIES TO ADVANCE AND INCREASE EFFECTIVENESS OF HIGH IMPACT WEATHER FORECASTS AND WARNINGS

GLOBAL ATMOSPHERE WATCH

3.3.2.8 The Council recognized that many NWP centres extended their activities and many more centres would be involved, within the decade, in operational use of chemical observations (e.g. aerosols and ozone) for improved prediction of weather and air quality on scales ranging from global to urban. The expert opinion expressed in the IGACO report was that while satellite chemical observations would be an important source of information, they were inadequate in vertical resolution needed in the lower troposphere, necessitating a comprehensive surface-based network of in situ balloon and remote-sensing observations as well as aircraft observations. The Council noted the important role of GAW in meeting this challenge and in the verification of forecasts and validation/calibration of satellite observations. Recognizing that integration of atmospheric chemistry data from different sources was being addressed through IGACO in the long term, the Council stressed the need to enable in the near future GAW data exchange in both real-time and in delayed mode. Aware of the work started between CAS and CBS to address that issue, in particular through the WIS, the Council requested both Commissions to pursue development of transmission mechanisms.

INTEGRATED GLOBAL ATMOSPHERIC CHEMISTRY OBSERVATIONS

3.3.2.9 Following the recommendation from the last session of the Council, CAS proposed a mechanism and a structure for the implementation of IGACO, a framework through which atmospheric composition observations from various sources could be integrated using research and operational NWP models. Implementation involved utilizing the over-arching plan of IGACO to build the system through key collaborative initiatives supported regionally but having global implications. The Council agreed that IGACO was eminently suitable to be led by WMO and endorsed the organization of WMO components in implementing IGACO with a central role taken by GAW and the WMO Space Programme and with substantial support from the WWW, WWRP, GCOS and GEOSS. The Council requested CAS to develop by Fifteenth Congress an implementation plan based on the strategic plan in the IGACO report; a plan consistent with the evolving GCOS, GEOSS and Integrated Global Observing Strategy Partnership. It further requested CAS to establish an IGACO implementation team co-chaired by WMO and the European Space Agency (ESA), and requested CBS, CCI and other Commissions to provide support as necessary. Finally, the Council requested the Secretary-General to create a dedicated IGACO coordination

office with support either from extrabudgetary sources or through secondment.

3.3.3 WORLD WEATHER RESEARCH PROGRAMME, INCLUDING THORPEX (agenda item 3.3.3)

3.3.3.1 The Executive Council noted that WWRP had been rigorous in selecting high quality projects which were developed from a research phase up to a pre-operational phase. The Council endorsed the establishment of a new WWRP/GAW Research Development Project on sand and dust storm, the WWRP Beijing Olympics 2008 Project, which comprised a Forecast Demonstration Project on nowcasting and a Research Development Project on mesoscale data assimilation and ensemble prediction system, both linked to THORPEX. The Council requested CAS, in consultation with CBS, to consider developing a project that would elaborate an optimum forecast process in the light of new science results and computing technologies. The Council further noted that Canada planned to develop a project for the 2010 Winter Olympics.

THORPEX

3.3.3.2 The Council noted that the THORPEX International Research Implementation Plan for 2005-2014 was completed with respect to recommendations made at its last session. It endorsed the Plan, the established management mechanism and the organizational structure instituted by the CAS International Core Steering Committee (ICSC) for the implementation phase with an initial budget of US\$ 1.2 million. The Council thanked Canada, China, France, Norway, the UK and the USA for their continuous financial support, and China for its seconded expert. Noting the remaining deficit in the THORPEX budget and the fact that the programme was mostly funded from extrabudgetary resources, the Council urged other Members to contribute in-kind and cash through the trust fund and urged the ICSC to renew efforts in fund raising.

3.3.3.3 The Council noted that a majority of the WMO Programmes had explicit roles in THORPEX, that there were cross-cutting activities and cooperation, and that its recommendations were promptly followed, namely that CBS was providing full support of all OPAGs coordinated through its vice-president and the Management Group and designated experts to THORPEX and vice versa. The THORPEX scientific community and the WCRP/Joint Scientific Committee (JSC) had made considerable progress to establish a collaborative plan for the development of a high-resolution global weather/climate prediction system within 10 years. That would be reflected eventually in the evolving THORPEX implementation plan and the WCRP COPES plan. To accomplish that, working arrangements between the JSC and THORPEX bodies were being developed. There were also other steps forward being undertaken by JCOMM and CCI. In that respect, the Council requested the presidents of technical commissions to develop appropriate coordination mechanisms such as those that had been done by CBS.

3.3.3.4 The Council noted that its recommendation concerning a prototype multimodel ensemble forecast system was elaborated into one of the major goals of THORPEX to define an evolving Global Interactive Forecasting System (GIFS), its development evaluation and testing would be based

on results of all four research components of the programme. The initial element of GIFS was the THORPEX Interactive Grand Global Ensemble (TIGGE) developed by the major operational centres, which committed, at its first phase, near-real-time availability of experimental ensemble model products to all WMO Members. Furthermore, THORPEX started to establish an inventory of existing databases, experimental datasets and NWP products to stimulate developing countries to participate in THORPEX. The Council invited Members to join TIGGE and to bring their resources into that project for the benefit of the whole Organization. The Council requested the Secretary-General to keep Members informed on further developments and opportunities, to stimulate active testing, utilization and gradual adaptation to those data sets and databases and to call for Member's regular feedback.

3.3.3.5 Noting regional organization of THORPEX in RAs II, IV and VI, the Council expressed its concern for the lack of established activities in other Regions, welcomed the initiative of South Africa and Morocco to lead development of an African plan, and urged development of the THORPEX partnership in the southern hemisphere led by Australia and South Africa, which should involve countries from RAs I, III and V. The Council urged developing and least developed countries to become involved in, and to take advantage of, THORPEX research, in particular by actively participating in THORPEX demonstration projects.

3.3.3.6 With respect to intercommission activities, the Council noted the CAS actions in support of the IPY, including those of the THORPEX/ICSC IPY Subcommittee, and of the Working Group on Environmental Pollution and Atmospheric Chemistry. GAW was effectively involved in (F)WIS. With respect to QMF, a new group on DPM, and representation of THORPEX in (F)WIS, CAS needed to consider further programmatic issues and coordinate relevant cross-cutting issues within the Commission to ensure its appropriate contribution and plans to address this matter at its forthcoming session.

INTERNATIONAL CONFERENCE ON IMPROVING ENVIRONMENTAL RISK MANAGEMENT USING ADVANCED WEATHER, WATER AND CLIMATE FORECASTS AND PREDICTIONS

3.3.3.7 The Council further discussed the proposal of Messrs A.M. Noorian and D.P. Rogers to organize an international conference on improving environmental risk management using advanced weather, water and climate forecasts and predictions. The Council recognized that the conference would facilitate exchange and communication of best practices in environmental risk management and improve the ability of developing countries in the application of weather, water and climate ensemble forecasts and predictions to help manage risk and support other societal, economic and environmental decisions. The Council recommended to consider organizing and sponsoring the conference in 2007 within the DPM framework, in a multidisciplinary cross-cutting fashion between CAS, CBS, CCI, CIMO, the Commission for Agricultural Meteorology (CAgM) and CHy. The Council welcomed with appreciation the kind invitation of the Islamic Republic of Iran to host that conference in Tehran. Recalling a number of complementary events planned

in 2006-2007, the Council requested careful coordination between all of those conferences and workshops.

3.3.4 TROPICAL METEOROLOGY RESEARCH PROGRAMME (agenda item 3.3.4)

The Executive Council took note of the encouraging progress report and emphasized the critical importance of the research activities related to tropical cyclone landfall processes in the context of natural disaster prevention and mitigation.

3.3.5 PROGRAMME ON PHYSICS AND CHEMISTRY OF CLOUDS AND WEATHER MODIFICATION RESEARCH (agenda item 3.3.5)

The Executive Council noted the progress report provided and continuous support and guidance to Members on weather modification activities.

3.4 APPLICATIONS OF METEOROLOGY PROGRAMME (agenda item 3.4)

3.4.1 PUBLIC WEATHER SERVICES PROGRAMME (agenda item 3.4.1)

3.4.1.1 The Executive Council reiterated that the end result of the provision of public weather sessions to the national community must be enhanced public safety and welfare. It highlighted the role of the Public Weather Services (PWS) Programme in assisting Members to deliver effectively quality products to ensure the protection of life and reduce property losses due to natural disasters. It recognized the valuable assistance provided to Members to achieve the above objective, in particular the comprehensive set of guidelines which had been prepared. The focus of the Programme in the coming period would be on the implementation of the guidelines to ensure improved meteorological products and services. To enable those developments, the Council requested the Secretary-General to continue the provision of adequate support for the PWS Programme.

3.4.1.2 The Council recognized that despite remarkable progress in the range and quality of public weather services provided by NMHSs, their effective application to the mitigation of natural disasters presented many opportunities and challenges, namely in taking advantage of technology and in meeting rising community expectations that technology should decrease their vulnerability to such disasters. In further recognizing that a particular challenge for WMO Members was to ensure that all the relevant meteorological, hydrological and climatological information was provided in a way that enabled informed decisions and actions, the Council requested the Secretary-General to extend the necessary assistance to NMHSs to create better public awareness of natural hazards and to contribute to vulnerability assessments for all potential natural threats with a view to strengthening an all-hazards community. It also encouraged NMHSs to strengthen their engagement with high-level decision makers in government, civil defence and the media to emphasize the value of warnings as public good. By their active participation through their respective PWS programmes, in the activities of the emergency management community, NMHSs could increase their recognition as the single authoritative voice for public weather warnings.

3.4.1.3 In that regard, the Council requested the PWS Programme to continue its strategy of building national capacities through conducting training activities, and transferring knowledge, application of technology and publication of guidelines on topics related to NMHSs' role in disaster prevention and mitigation. Recalling Resolution 13 (Cg-XIV) — Public Weather Services Programme, that laid emphasis on the support that PWS activities could offer to the prevention and mitigation of natural disasters, the Council strongly urged the DPM Programme to support the PWS programme. It further urged close collaboration between the PWS and the DPM Programmes in a manner that avoided any unnecessary duplication and that assisted Members in the all-round effort to minimize the adverse effects of severe and high impact weather events. The communication and advocacy tools, which were needed at times of natural disasters were created and refined in the daily provision of public weather products and services. Those day-to-day services formed the foundation on which extraordinary services could be built, which must be provided when disaster threatened. As an example, the Council recognized the value of providing information that was simple and easy to understand on the intensity of weather conditions by using tools such as a potential risk scale displayed through colour-coded maps, such as the vigilance maps used in France. Within the framework of Strategy No. 1 of the 6LTP to save lives, which was fully in line with the primary objective of the PWS Programme and the above-referred collaboration, the Council requested the Secretary-General to hold regional training workshops on public weather services in support of disaster prevention and mitigation giving priority to the developing, and especially least developed, countries based on specific regional needs. Those workshops were preferably to be carried out in conjunction with sessions of regional associations. In addition, the Council requested that fully-costed proposals be submitted for consideration by its fifty-eighth session.

3.4.1.4 The work of the PWS Programme in improving and refining the delivery of weather products and services meant that it had a contribution to make to almost all areas of work of WMO. Although not a cross-cutting programme in the formal sense, the skills and capabilities gathered and nurtured under the PWS Programme had something to offer to many of the other Programmes of the Organization, all of which aimed towards saving lives and property and enhancing sustainable development. A specific example was THORPEX which had explicitly included a component on social and economic application tasks. The PWS Programme would collaborate closely with THORPEX in the framework of CBS and WWRP of CAS through the participation of the chairperson of the OPAG on PWS to ensure the optimum synergies between THORPEX and the PWS Programme.

3.4.1.5 The Council encouraged NMHSs to explore further the potential of the Internet for dissemination of weather information and warnings. In the national context, those could mean the compilation of natural hazards and potential disasters applicable to the circumstances of countries. In the worldwide context, the Council noted with satisfaction the success and popularity of the World Weather Information Service (WWIS) and the Severe Weather Information Centre (SWIC) Web sites among the public and WMO Members. By

mid-June 2005, WWIS carried forecasts for 1 043 cities from 105 Members and climatological information for 1 091 cities from 154 Members. The Council further noted that CBS-XIII had agreed that the WWIS and SWIC Web sites should henceforth become an operational component of the PWS Programme, and be maintained by the current WWIS and SWIC host Members, namely China (Chinese); Hong Kong, China (English); Macao, China (Portuguese) and Oman (Arabic). The Council invited other Members to consider the hosting of WWIS Web sites in other languages and encouraged all Members to participate actively in the WWIS and SWIC Web sites and to link to it from their own Web sites. In that regard, the Council welcomed with gratitude the offers of France and Spain (in collaboration with other Spanish-speaking countries) to study the possibility of providing French and Spanish versions of the WWIS web sites, respectively.

3.4.1.6 The Council recognized the importance of the human element in the credible transmission of weather information to the public. In that regard, the Council requested that WMO maintain and strengthen its links with the international broadcast meteorology community and assist Members to anticipate trends in media and be proactive in developing new products and services. The Council further encouraged Members to maintain and strengthen their interaction with their national media and, where possible, seek opportunities for expanding the broadcast of their warning and forecasts services to the public. In that connection, the Council expressed appreciation to the UK Met Office for providing assistance and equipment to improve public weather presentation in a number of WMO Member countries.

3.4.1.7 In line with encouraging NMHSs to focus on the fundamental principles of PWS in contributing to the safety of life and alleviation of poverty through reducing the effects of severe and high impact weather as given in the 6LTP, the Council requested the Secretary-General to assist Members in the evaluation and demonstration of the social, environmental and economic benefits of their public weather services through elaboration of methodologies and guidance on case studies. The Council also gave consideration to the organization in 2007 of the International Conference on the Economic and Social Benefits of Meteorological and Hydrological Services (see agenda item 8.2).

3.4.2 AGRICULTURAL METEOROLOGY PROGRAMME, INCLUDING THE REPORT OF THE PRESIDENT OF CAgM (agenda item 3.4.2)

The Executive Council noted the Progress/Activity Report on the implementation of the Agricultural Meteorology Programme and decided as follows:

- (a) As regarded the institutional support to the Agricultural Meteorology Programme, the Council requested the Secretary-General to provide support to the meetings of the Regional Working Groups on Agricultural Meteorology so that the priority issues of promoting sustainable agriculture in the regions could be properly addressed;
- (b) As regarded the improved agrometeorological services for agricultural production, the Council:
 - (i) Supported the initiatives taken to address the locust menace in North and West Africa through

the organization of an expert meeting and training workshop and called on the Members to upload their daily meteorological data on the World Agrometeorological Information Service (WAMIS) in order to facilitate the operations of the national Locust Control Centres (LCCs);

- (ii) Suggested that a pilot project be developed for implementation in the locust-affected countries to ensure improved monitoring of the locust invasions that took into account the evolving meteorological conditions. The Council noted with appreciation that a concept note on "Early Warning Systems for Desert Locusts – A West Africa Pilot Project" had already been prepared by the Secretariat with the main objective of developing more effective and efficient operational tools and information for monitoring and predicting locust development and migration and build the capacity of the National Agencies in planning control operations. The proposed pilot project would reinforce cooperation at the national level between the NMHSs and the national LCCs and also reinforce national expertise in the utilization of meteorological information for locust monitoring and prediction;
- (iii) Supported the collaboration with COST ACTION 718 Meteorological Applications for Agriculture, of the European Science Foundation in organizing two meetings of CAgM Expert Teams and encouraged continued collaboration with COST ACTION 718;
- (iv) Approved the proposal to publish jointly with COST ACTION 718 the proceedings of the above two Expert Team meetings and disseminate them widely;
- (v) Supported the recommendations of the Expert Team on Weather, Climate and Farmers:
 - a. That there was a strong need for a paradigm shift from supply-driven data to demand-driven information and that agrometeorological services should work closely with communication experts in researching how that paradigm shift could be achieved;
 - b. That agrometeorologists should have a greater interaction with the Implementation Coordination Team experts concerning the knowledge of the farmers, on benefits of different communication means and available resources;
 - c. That agrometeorologists worked closely with agricultural extension and research services in order to target efficiently the farming community;
- (vi) Requested the Secretary-General to encourage the development of regional training workshops on trends in new technologies and methods for agrometeorologists, extension agents and farmers;
- (c) As regarded strengthened support systems for agrometeorological services, the Council:

- (i) Supported the recommendations of the Expert Team on Techniques (including technologies such as geographical information systems and remote sensing) for Agroclimatic Characterization and Sustainable Land Management that agroclimatic analysis, agrometeorological monitoring, models and geographical information systems should be more widely used to produce agrometeorological information using text, graphical and map formats;
 - (ii) Noted that WAMIS (www.wamis.org) has products from over 22 countries and provides tools and resources to help countries improve their bulletins and services. Considering the benefits of WAMIS to Members, the Council urged Members to participate and disseminate their products to the global community as those products could also aid in natural disaster assessments by providing bulletins in both real-time and from a historical perspective;
 - (iii) Expressed its appreciation to NOAA for their support in funding WAMIS and urged NOAA to continue to provide support;
- (d) As regarded improved understanding of the agrometeorological impacts of climate change/variability and natural disasters, the Council:
- (i) Supported the recommendations of the Implementation Coordination Team on Climate Change/Variability and Natural Disasters in Agriculture:
 - a. That a project entitled “Assessment of Natural Disaster Impacts on Agriculture (ANADIA)” be developed with appropriate case studies in different regions in collaboration with DPM;
 - b. That a project entitled “Contributions of Agriculture to the State of Climate (CONASTAC)” be developed and implemented in different regions to promote a better understanding of how agricultural practices were contributing to the current state of the climate;
 - c. That to promote more active applications of seasonal climate forecasts, a bottom-up approach be used and that a project entitled “Climate Forecasts for User Communities (CLIFORUC)” be prepared taking into account the recommendations of the Expert Team on Climate Change/Variability on Medium- to-Long-range Predictions for Agriculture;
 - (ii) Supported the collaboration with START in organizing the International Workshop on Climate Prediction and Agriculture: Advances and Challenges (Geneva, 11-13 May 2005) and the Synthesis Workshop of the Advanced Training Institute on Climate Variability and Food Security (Geneva, 9-10 May 2005) and encouraged continued collaboration with START;
- (e) The Council noted with appreciation the active collaboration that existed between WMO and FAO in the

organization of the Inter-regional Workshop on Strengthening Operational Agrometeorological Services (Manila, 22-26 March 2004), the Meeting of the Expert Team on Weather, Climate and Farmers (Geneva, 15-18 November 2004) and the Workshop on Climatic Analysis and Mapping for Agriculture (Bologna, Italy, 14-16 June 2005). It requested closer cooperation with FAO on scientific and technical activities aimed at providing improved services to farmers and other end-users of agrometeorological information and products;

- (f) The Council approved the proposal of the Selection Committee for the Norbert Gerbier-MUMM International Award for 2006 and conferred the 2006 award on Drs T.N. Palmer, A. Alessandri, U. Andersen, P. Cantelaube, M. Davey, P. Délécluse, M. Déqué, E. Díez, F.J. Doblas-Reyes, H. Feddersen, R. Graham, S. Gualdi, J.F. Guérémy, R. Hagedorn, M. Hoshen, N. Keenlyside, M. Latif, A. Lazar, E. Maisonave, V. Marletto, A.P. Morse, B. Orfila, P. Rogel, J.-M. Terres and M.C. Thomson for their paper entitled “Development of a European Multimodel Ensemble System for Seasonal-to-Interannual Prediction (DEMETER)” published in the *Bulletin of the American Meteorological Society*, Volume 85, Number 6, June 2004, pp 853-872.

3.4.3 AERONAUTICAL METEOROLOGY PROGRAMME; THE REPORT OF THE PRESIDENT OF CAeM (agenda item 3.4.3)

The Executive Council noted the Progress/Activity Report on the implementation of the Aeronautical Meteorology Programme. Concerning training, the Council:

- (a) Reiterated the importance it placed on the need for training on such topics as cost recovery, quality management, and the GRIB and BUFR codes;
- (b) Appealed to Members to organize jointly aeronautical meteorology training events with WMO, and welcomed the plans by the Russian Federation to hold three seminars in collaboration with WMO over the next year;
- (c) Requested the Secretary-General, the Commission for Aeronautical Meteorology (CAeM) and Members to organize further training on cost recovery in all WMO Regions, in collaboration with the International Civil Aviation Organization (ICAO) as soon as possible and stressed the advantages of involving stakeholders such as civil aviation authorities, airlines representatives as well as airport authorities;
- (d) Requested the Secretary-General to hold as soon as possible a seminar on quality management to be hosted by Hong Kong, China, with as broad attendance as possible, including emphasis on developing countries;
- (e) Encouraged CAeM to work directly with regional associations and their management structures to organize regional training events.

Concerning guidance material, the Council:

- (a) Requested the Secretary-General and CAeM to review and update the *Guide on Aeronautical Meteorological Services Cost Recovery: Principles and Guidance* (WMO-No. 904) to reflect the content of the revised ICAO *Manual on Air Navigation Services Economics* (Doc. 9161); and take the necessary steps to ensure that

copies of that ICAO *Manual* were made available to Members if free access to that *Manual* was not possible through the ICAO Web site;

- (b) Requested the Secretary-General to publish and make available to Members as soon as possible the joint ICAO/WMO guidance material on quality management systems already completed.

Concerning coordination and collaboration, the Council:

- (a) Requested the Secretary-General and Members to seek closer coordination between WMO representatives and Members attending ICAO meetings as representatives of ICAO Contracting States;
- (b) Requested the Secretary-General and CAeM to continue to monitor closely the situation with regard to the Single European Sky (SES) as well as its possible implication for meteorological service provision and cost recovery in other regions and to report to the Council highlighting implications and lessons learned;
- (c) Encouraged collaboration on SES issues with the European Organization for the Safety of Air Navigation (EUROCONTROL) through the Secretariat, Members and the CAeM RA VI Rapporteurs;
- (d) Encouraged further collaboration with the International Federation of Air Line Pilots Association (IFALPA) and the International Federation of Air Traffic Controllers' Associations (IFATCA) on the Aeronautical Meteorology Programme;
- (e) Reiterated the need for urgent actions to be taken by Members to replace their current Satellite Distribution System for information Relating to Air Navigation (SADIS) and International Satellite Communications System (ISCS) Very Small Aperture Terminal (VSATs) as well as their workstations and to install the latest visualization software version to enable them to access and process flight documentation and prepare T4 charts locally;
- (f) Requested the Secretary-General to facilitate support, and Members to assist those in need of equipment replacement for SADIS and ISCS;
- (g) Requested the Secretary-General to ensure better planning and coordination over the implementation of Amendment 74 to ICAO Annex 3/WMO Technical Regulations [C.3.1] and associated aeronautical meteorological codes.

Concerning expert teams activities, the Council:

- (a) Urged Members to make experts' time and/or funding available to progress the standardized TAF verification software intended to provide user-oriented information TAF quality (not for intercomparison between countries), and to ensure that the method was applicable in all areas of the world including the tropics;
- (b) Urged Members, the president of CAeM and CAeM OPAG chairpersons to encourage nominated experts to carry out activities assigned to them by the Commission.

Concerning the Aircraft Meteorological Data Relay (AMDAR), the Council:

- (a) Urged the AMDAR Panel to progress important Panel activities such as the improvement of data exchange and quality control, coordination of national and regional AMDAR programmes and the development of a humidity sensor;

- (b) Requested CBS and CAeM to continue to work on the migration of AMDAR activities to the WWW GOS, and to collaborate on issues of training of use of AMDAR data in accordance with Recommendation 1 (CBS-XIII)

Required training relevant to AMDAR, on that issue;

- (c) Expressed its appreciation to Members already contributing to the AMDAR Trust Fund and strongly encouraged others to do the same.

Concerning the CAeM-XIII session, the Council:

- (a) Requested the Secretary-General and president of CAeM to start preparation for the thirteenth session of CAeM planned to be held in the second half of 2006, recalling that Egypt had offered to host that session; and
- (b) Requested the Secretary-General and the president of CAeM to start preparations for the CAeM Technical Conference noting that relevant budgetary provisions had been made by Congress.

3.4.4 MARINE METEOROLOGY AND OCEANOGRAPHY PROGRAMME; THE IN-DEPTH REPORT OF THE CO-PRESIDENT OF JCOMM (agenda item 3.4.4)

3.4.4.1 The Executive Council noted with appreciation the report of the co-president of the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), Mr J. Guddal, on the activities undertaken within the framework of JCOMM during the past year including the planning for JCOMM-II.

3.4.4.2 The Council noted that the organizational transition from the Integrated Global Ocean Services System (IGOSS) and Commission for Marine Meteorology (CMM) to JCOMM seemed to be well accepted by both the parent organizations and Member States, and that most steps in the transition had been fairly smooth. Significant progress was achieved within the four JCOMM Programme Areas with cross-cutting working relations with the International Oceanographic Data and Information Exchange (IODE), the Global Ocean Observing System (GOOS), TCP, CAgM, CHy, WMO/WIS and the International Hydrographic Organization (IHO). Some overlaps needed still to be assessed and the potentials of synergy must be further exploited. To that effect, the Council:

- (a) Encouraged JCOMM efforts towards preparation of a JCOMM Strategy document;
- (b) Agreed on the actions, including establishment of additional subsidiary bodies, undertaken by JCOMM for implementation of its further progress;
- (c) Agreed on JCOMM decisions to develop a joint data management strategy between IODE, JCOMM and WMO/WIS and a cooperative capacity-building work plan with the IOC, including relevant training events of TCP, IODE and GOOS regional alliances;
- (d) Requested the Secretariat and JCOMM to be associated with establishing a Coastal Data Assimilation Experiment (CODAE) similar to the Global Ocean Data Assimilation Experiment (GODAE).

3.4.4.3 The Council noted detailed information provided on the problem of data transmission costs from Voluntary Observing Ships and recognized that possible mechanisms for its solution were still under development. In that connection, the Council noted that a partial solution to the problem of fairly distributing

such costs was being developed by European countries participating in the E-SURFMAR programme. However, a global solution to the problem would be very difficult to achieve. It was also noted that there were potentially serious security risks associated with allowing Voluntary Observing Ships call signs and position data to be made freely available on external Websites not maintained by the National Meteorological or Hydrometeorological Services (NMSs). Because ship observations were regarded as 'essential data' in Resolution 40 (Cg-XII) — WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities, the problem was likely to persist. It was therefore agreed at the last JCOMM Ship Observations Team meeting (SOT-III, March 2005), that a report on the issue should be made at the fifty-eighth session of the Executive Council.

3.4.4.4 The Council noted the essential role of JCOMM in a number of existing and recent cross-cutting projects, including GEO, the tsunami early warning systems and IPY. In that context, the Council:

- (a) Encouraged the Members/Member States involved in the GEO process to maintain references to the GCOS Implementation Plan, and advocate for a policy of free and unrestricted exchange of marine and oceanographic data in compliance with Resolution 40 (Cg XII);
- (b) Stressed the need for the JCOMM Secretariat to make GEO recognize the existing WMO plans and relevant activities in its long- and short-term plans;
- (c) Encouraged IOC and WMO to take full advantage of JCOMM to support the implementation and operations of the Tsunami Warning System in the Indian Ocean and other regions at risk; and requested to aim in all cases for a multi-hazard and integrated approach by collaborating with the NMHSs, the Global Maritime Distress and Safety System (GMDSS) and relevant external partners, including the Intergovernmental Coordinating Groups (ICG) of IOC established in the Pacific (1968) and Indian Ocean (2005), the International Maritime Organization and the ISDR. It was important that that network of tsunami early warning centres be built on existing infrastructure and programmes. In particular, the JCOMM structure and programmes could provide the foundation for that network;
- (d) Encouraged the Members/Member States to be actively involved in the large-scale projects on polar oceanography as an IPY project and to that effect requested JCOMM to enhance constantly observing systems and services for polar waters.

3.4.4.5 The Council emphasized the JCOMM importance for global climate studies and noted that by 2004 the baseline GCOS system was only half complete. For that implementation, the Council:

- (a) Requested the JCOMM Secretariat and Ocean Observations Panel for Climate (OOPC) to continue to stress JCOMM importance to global climate studies in relevant GCOS documentation;
- (b) Requested JCOMM to plan the actions for the next inter-sessional period in conjunction with GCOS and GOOS;
- (c) Recommended to Members/Member States to increase their investments in the global observing systems.

3.4.4.6 The Council noted that the second session of JCOMM was scheduled to take place in Halifax, Canada on 19-27 September 2005. Detailed planning for all necessary arrangements for the session was well under way and was for the most part on schedule, and for celebration and ceremonial deployment during JCOMM-II for the 1 250th global drifting buoys in sustained service. A joint circular letter had been prepared to solicit voluntary contributions from countries willing to help support the Scientific Conference on Operational Oceanography and Marine Meteorology for the 21st Century, which would precede JCOMM-II. Those contributions could go to the overall support of that important scientific event, or could allow the participation of scientists from developing countries who might not otherwise be able to attend.

3.4.4.7 The Council noted that although a number of planned JCOMM meetings were held on opportunistic basis, the current funding would not be adequate for the progress expected of JCOMM in 2005. To that effect, the Council requested the Secretariat to undertake appropriate actions for the provision of additional funding for JCOMM activities in 2005 from extrabudgetary sources.

3.4.4.8 The representative of UNESCO/IOC conveyed the regret of the IOC Executive Secretary on not addressing the Executive Council directly due to the concurrent scheduling of the IOC Assembly, but brought his best wishes and congratulations on the present session of the Executive Council. The representative informed the Executive Council of the results of the IOC Assembly thus far, and specifically mentioned the strong support of the IOC for a number of programmes where partnership with WMO was essential, including: JCOMM; GOOS; GCOS; a multi-hazard marine warning and mitigation system within a global framework; a comprehensive, coordinated and sustained GEOSS; and WCRP. The IOC representative emphasized the critical necessity of the continuing collaboration between the WMO and the IOC in their efforts to bring the resources of the oceanographic and meteorological communities to bear on common challenges.

3.5 HYDROLOGY AND WATER RESOURCES PROGRAMME (agenda item 3.5)

3.5.1 THE REPORT OF THE PRESIDENT OF CHy; AND THE REPORT OF THE TWELFTH SESSION OF THE COMMISSION (agenda item 3.5.1)

3.5.1.1 The Executive Council noted the progress made in the CHy activities leading up to the twelfth session of the Commission, held in Geneva in October 2004.

3.5.1.2 The Council noted the report of the president of the Commission, in particular as regarded the conduct and outcome of CHy-XII.

3.5.1.3 Having considered the report of CHy-XII, including the recommendations adopted at the session, the Council recorded its decisions in **Resolution 4 (EC-LVII)**.

3.5.2 HYDROLOGY AND WATER RESOURCES PROGRAMME (agenda item 3.5.2)

3.5.2.1 The Executive Council noted the Progress/Activity Report on the implementation of the HWRP and requested the Secretary-General to ensure a more equitable distribution of resources amongst the six Regions.

3.5.2.2 The “Comprehensive report on WHYCOS and the status of HYCOS projects under way” was prepared by the Secretariat with the assistance of CHy. The Council recalled that that report had been requested by Fourteenth Congress, in order to assess the state of implementation and the sustainability of the various HYCOS components. The Council noted with appreciation the report and encouraged the Secretary-General to strengthen efforts towards the implementation of HYCOS projects.

3.5.2.3 The Council recalled that Fourteenth Congress had welcomed the proposal of the Intergovernmental Council of the International Hydrological Programme of UNESCO to establish a joint WMO/UNESCO Committee on Floods. It noted that since then the concept had evolved both in scope and as regarded the collaborating agencies, and was informed that CHy had worked on it, both at its twelfth session (Geneva, October 2004) and through its participation in a Joint Task Team. As a result, the Council examined the proposal on the International Flood Initiative, as developed by the Joint Task Team of experts representing the hydrological programmes of WMO, UNESCO, the United Nations University and the International Association of Hydrological Sciences and recorded its decisions on that matter in **Resolution 5 (EC-LVII)**.

3.5.2.4 The Council, recognizing the importance of water issues, observed that more time should be assigned for discussing the Hydrology and Water Resources Programme in WMO constituent bodies in the future.

3.6 EDUCATION AND TRAINING PROGRAMME (agenda item 3.6)

INSTITUTIONAL SUPPORT TO EDUCATION AND TRAINING (ETR)

3.6.1 Noting the need to enhance and expand the cooperation and partnership with education-related programmes of other agencies and international organizations, the Executive Council encouraged the Secretary-General to pursue initiatives on education and training (ETR) collaboration with, among others, Members of the Standing Conference of Heads of Training Institutions of National Meteorological Services (SCHOTI) and its Coordinating Committee for the creation of activities for learning and for the development of e-learning/distance learning on a world-wide basis.

HUMAN RESOURCES DEVELOPMENT

3.6.2 The Council recalled the need to assist NMHSs in developing countries and countries with economies in transition in their efforts in human resources development planning.

3.6.3 As regarded the new WMO Classification and Curricula, the Council noted the constraints and difficulties faced by some Members and some Regional Meteorological Training Centre (RMTCs) in the implementation process. In that context, the Council recognized the need and agreed to extend the transitional period for the implementation of the *Guidelines for the Education and Training of Personnel in Meteorology and Operational Hydrology* (WMO-No. 258) to 31 December 2006.

TRAINING ACTIVITIES

3.6.4 Considering the large number of countries in RAs I and VI, and the need to focus on regional issues, the Council agreed that the 2006 Regional Training Seminar for Trainers of RA I/RA VI should be organized as two different seminars for RAs I and VI, respectively.

3.6.5 The Council encouraged the ongoing process of digitization and translation of training materials and, taking into account the cost involved, requested Members to assist on those matters. The Council further encouraged the continued dissemination of those materials in the form of CDs and through the Website.

3.6.6 The Council encouraged RMTCs to continue to implement new relevant programmes and advanced specialized courses to satisfy regional needs and requested the Secretary-General to continue to assist RMTCs and national training centres in need, within the available resources.

3.6.7 With reference to Recommendation 3 (CHy-XII) — Revision of scope of the WMO Regional Meteorological Training Centres (RMTCs), especially to accommodate other scientific and technical disciplines of interest to WMO, the Council requested the Executive Council Panel of Experts on Education and Training to study that matter and to report to its fifty-eighth session.

3.6.8 The Council reiterated its encouragement for NMHSs and RMTCs to work more closely together to identify regional training requirements and to explore new ways to meet those needs.

3.6.9 The Council underscored the need to develop education and training in meteorological economics and management for the staff of NMHSs and for users.

3.6.10 The Council noted the launching of the United Nations Decade of Education for Sustainable Development (UNDESD) in 2005 and requested the Secretary-General to continue to undertake actions on public education in order to make the professions of meteorologist and hydrologist more attractive to the public and in schools.

EDUCATION AND TRAINING FELLOWSHIPS

3.6.11 The Council noted the progress being made in the implementation of the new measures taken by the Secretary-General to ensure the highest possible level of effectiveness and fairness of the ETR Fellowships Programme.

3.6.12 The Council acknowledged with appreciation the generous contributions of VCP donor Members and appealed to them to maintain, and if possible to increase further, their support to the Fellowships Programme. It also appealed to Members to assist in the further enhancement of the Fellowship Programme, taking into account the growing demand for capacity-building in new and specialized fields of meteorology and operational hydrology.

3.6.13 The Council urged Members to select well-qualified candidates for training and to prepare long-term plans for the integration and utilization of their trained personnel, upon completion of their fellowships, within their respective NMHSs in order to strengthen the scientific infrastructure of those services.

3.6.14 The Council stressed the importance of monitoring and evaluating fellowship activities and urged requesting Members to ensure that the knowledge acquired was utilized

appropriately and to keep the Secretary-General informed of the effectiveness of the training provided.

3.6.15 The Council further requested the Secretary-General and Members to continue to explore new sources of financial support in order to meet the continuous need for fellowships.

SUPPORT TO TRAINING EVENTS UNDER OTHER MAJOR WMO PROGRAMMES

3.6.16 The Council requested the Secretary-General to continue the organization of specialized training events taking into account the ongoing scientific advances and the identified training requirements priorities in specialized subjects such as public weather awareness and services, climate change, disaster prevention and others.

3.7 TECHNICAL COOPERATION PROGRAMME (agenda item 3.7)

3.7.1 The Executive Council recognized that Members continued to benefit from the activities carried out under the Technical Cooperation Programme, which covered several areas such as project and programme development, resource mobilization and capacity-building. Those activities were implemented within the framework of various funding sources such as the WMO VCP, Trust Fund, the UNDP, the Global Environment Facility (GEF), the World Bank, regional development banks and other sources.

THE WMO VOLUNTARY COOPERATION PROGRAMME

3.7.2 Noting with appreciation that, during the 2005 Informal Planning Meeting on the VCP and related Technical Cooperation Programmes, donor Members indicated their willingness to continue or enhance their support to the VCP in 2005, the Council urged other Members to participate more actively in the Programme. It also encouraged Members to explore further potential partners more broadly in their respective countries such as development agencies and the private sector. In addition, the Council requested the Secretary-General to pursue similar efforts.

3.7.3 The Council reviewed the report on the use of the Voluntary Cooperation Fund (VCP(F)) in 2004 and approved the allocations of VCP(F) for 2005, based on an estimated income amounting to approximately US\$ 220 000, as given in **Annex III** to this report. The Council authorized the Secretary-General to implement the VCP(F) projects as funds became available. In that connection, the Council requested the Secretary-General to provide information on the implementation of projects under the VCP(F) in such a way as to ensure transparency and accountability and thereby encourage further contributions to the VCP(F).

REGULAR BUDGET COOPERATION ACTIVITIES

3.7.4 Recalling that a mechanism was established for effective coordination and promotion of the Secretariat resource mobilization efforts, the Council agreed that resource mobilization activities be carried out with increased participation of WMO Field Offices, taking into account the awareness by funding agencies of areas of competence of WMO; the priority areas of funding agencies relevant to NMHSs; project proposals to conform to formats and procedures of funding agencies; and the active involvement of the recipient NMHS(s).

3.7.5 The Council recalled that its fifty-sixth session had agreed on the organization of an international symposium on technical cooperation, possibly during the next financial period, to promote WMO's role and the benefits of NMHSs to socio-economic development activities in the countries, and to enhance partnerships with funding agencies. In order to organize the symposium effectively and efficiently, the Council endorsed the view of the 2005 Informal Planning Meeting that further investigation be carried out, for example, on whether it could be held co-jointly with another related WMO activity, such as the International Conference on Economic and Social Benefits of Meteorological and Hydrological Services or the GEO Capacity-Building Conference now under consideration, or regional meetings.

WMO PROGRAMME FOR THE LEAST DEVELOPED COUNTRIES (LDCs)

3.7.6 The Council reviewed the major outcomes of the meeting on the WMO Programme for the LDCs including a strategic action plan and endorsed the recommendations, in particular: (a) adopting an integrated but country-specific strategic approach when implementing the Programme; (b) providing NMHSs in LDCs with the means to enable them to offer a minimum set of products and services to their respective Governments and users; (c) adopting a cross-cutting approach within the WMO Secretariat to facilitate the implementation of the Programme through the establishment of a Programme Steering Committee; (d) paying special attention to the problems of LDCs by all WMO scientific and technical programmes when developing and implementing their activities; (e) establishing an appropriate structure and funding mechanism for the effective implementation of the Programme considering its cross-cutting nature; (f) facilitating information flow to the LDCs on how they could take advantage of the various opportunities to enhance resource mobilization; and (g) mobilizing resources to support the participation of LDCs in training seminars/workshops including a training seminar in leadership and management to be organized by the China Meteorological Administration in 2005 and the WMO Global Symposium on Education and Training in Meteorology and Hydrology to be held in China in October 2006.

3.7.7 The Council requested the Executive Council Advisory Group of Experts on Technical Cooperation to monitor and follow up the implementation of the proposed action plan and to assist in the mobilization of resources.

SECRETARIAT SUPPORT FOR THE IMPLEMENTATION OF THE TECHNICAL COOPERATION PROGRAMME

3.7.8 The Council noted that the Technical Cooperation Programme was a high priority activity of WMO with certain core functions funded by the regular budget under Programme 3.7 as decided by Fourteenth Congress while other activities in support of the Programme were funded with resources from the Technical Cooperation Fund. The Council reviewed the 2006-2007 proposals concerning the Fund and noted that the projected delivery from the extrabudgetary resources including the VCP and bilateral arrangements would reach approximately CHF 31 million during the biennium. The Council further noted that there was a tendency by which a number of Members required WMO's technical assistance in

the development and implementation of projects using their own resources or through bilateral arrangements where WMO had no direct involvement in the execution of projects. The new WMO support costs policy established by the fifty-sixth session of the Executive Council would continue to be applied in 2006-2007 to the VCP and trust funds projects. The revenues from that delivery were estimated at CHF 1.6 million for the period. That would cover staffing costs incurred to implement extrabudgetary technical cooperation activities. The Secretariat support funded from the regular budget would also be provided for the implementation of extrabudgetary technical cooperation activities, which would ensure appropriate synergy between the regular budget and extrabudgetary funds, aimed at effective and cost-efficient programme implementation. The Council adopted **Resolution 6 (EC-LVII)** and approved the proposed budget.

3.8 REGIONAL PROGRAMME, INCLUDING THE REPORTS OF THE THIRTEENTH SESSION OF REGIONAL ASSOCIATION II (ASIA) AND THE FOURTEENTH SESSION OF REGIONAL ASSOCIATION IV (NORTH AMERICA, CENTRAL AMERICA AND THE CARIBBEAN) (agenda item 3.8)

3.8.1 The Executive Council recalled that the Regional Programme should provide support to regional associations and contribute to the development of NMHSs through capacity-building activities and other priority activities identified by the Members, or relevant economic groupings and organizations within the respective Regions.

REPORT OF THE THIRTEENTH SESSION OF RA II (ASIA)

3.8.2 The Council expressed its appreciation to the Government of the Hong Kong Special Administrative Region of the Peoples Republic of China, for having hosted the thirteenth session of Regional Association II (Asia) in Hong Kong, China, from 7 to 15 December 2004, which recorded the highest number of participants.

3.8.3 The Council noted that the Association approved a total of 27 resolutions, appointed rapporteurs for 10 topics, re-established five Working Groups: on Planning and Implementation of the WWW, on Climate-related Matters, on Agricultural Meteorology, on Hydrology, and the RA II Advisory Working Group and established a new Working Group on Natural Disaster Prevention and Mitigation in RA II. It also agreed on a new set of regional priorities for the preparation of the Seventh WMO Long-Term Plan (7LTP).

3.8.4 The Council was pleased to note that the Association adopted the Strategic Plan for the Enhancement of National Meteorological Services in RA II (Asia) for 2005-2008; considered the draft Regional Strategic Plan for the Enhancement of National Hydrological Services in RA II (Asia); and agreed to develop and implement, as a specific contribution to the WMO Programme for LDCs, two pilot projects: Provision of city-specific NWP products for developing countries via the Internet, and Provision of support to developing countries in the Aeronautical Meteorology Programme.

3.8.5 The Council considered the report of the thirteenth session of Regional Association II (Asia) and embodied its decision in **Resolution 7 (EC-LVII)**.

REPORT OF THE FOURTEENTH SESSION OF RA IV (NORTH AMERICA CENTRAL AMERICA AND THE CARIBBEAN)

3.8.6 The Council expressed its appreciation to the Government of Costa Rica for having hosted the fourteenth session of Regional Association IV (North America, Central America and the Caribbean), in San José, Costa Rica from 5 to 13 April 2005, with the participation of all Members except Haiti, the only LDC in the Region.

3.8.7 The Council noted that the Association approved a total of 19 resolutions, appointed 10 different rapporteurs; re-established four Working Groups: on Planning and Implementation of the WWW, on Agricultural Meteorology, on Hydrology, and the Hurricane Committee; established two new subsidiary bodies, namely the Working Group on Natural Disaster Prevention and Mitigation in RA IV, and the Management Group of RA IV. It also agreed on RA IV regional priorities in the preparation of the 7LTP.

3.8.8 The Council was pleased to note that the Association recognized the prompt assistance provided by WMO to Haiti and the Dominican Republic following the floods that affected both countries in May 2004 and also the successful implementation of initiatives such as the SIDS Caribbean Project and the Water Resources Management Project of Mexico.

3.8.9 The Council considered the report of the fourteenth session of RA IV (North America, Central America and the Caribbean) and embodied its decision in **Resolution 8 (EC-LVII)**.

REGIONAL AND SUBREGIONAL OFFICES

3.8.10 The Council was informed of the activities and functioning of the three Regional Offices and five subregional offices in operation: the Regional Office for Africa, the Regional Office for Asia and the South-West Pacific, the Regional Office for the Americas; the Subregional Office for Eastern and Southern Africa; the Subregional Office for North, Central and West Africa; the Subregional Office for the South-West Pacific; the Subregional Office for Northern America, Central America and the Caribbean, and the Subregional Office for Europe.

3.8.11 The Council noted that the Regional and Subregional Offices continued to discharge their responsibilities through the provision of assistance to NMHSs in the respective Regions and Subregions and support to the regional associations and their subsidiary bodies; the collaboration with regional and subregional groupings/organizations; and the organization of capacity-building regional seminars, workshops and technical conferences.

3.8.12 The Council recognized the role played by Regional and Subregional Offices on the occasion of natural disasters such as the May 2004 floods in Haiti and the Dominican Republic and the December 2004 Indian Ocean tsunami, leading to increase the visibility of WMO within the respective regions.

3.8.13 The Council noted the support and assistance provided to the Members by the Subregional Offices in the identification of requirements and in project formulation and resource mobilization. It requested the Secretary-General to develop mechanisms to evaluate better the outcomes of the activities of those offices. It also called upon Members to support and facilitate the work of those offices.

3.8.14 The Council highlighted the support provided to the presidents and vice-presidents of regional associations by the Regional and Subregional Offices and recognized the need to increase their autonomy and resources in order to become an efficient interface between the Secretariat and Members and to contribute to a better communication within the respective regions.

3.8.15 The Council noted that the new structure of the Regional and Technical Cooperation Activities for Development (RCD) Department was being implemented in a phased manner to operate through core Offices based at Headquarters and Field Offices located in respective regions.

3.8.16 The Council expressed its appreciation to the Kingdom of Bahrain for its support to the establishment of the Subregional Office for Asia and requested the Secretary-General to take the necessary measures for the official opening of the Office.

3.8.17 The Council urged the Secretary-General to harmonize Regional and Subregional Offices as appropriate and to take relevant steps to regularize, as a priority, the situation of Offices in RAs III and IV.

3.9 NATURAL DISASTER PREVENTION AND MITIGATION PROGRAMME (agenda item 3.9)

3.9.1 The Executive Council noted the significant contributions of WMO to the successful preparation and outcomes of WCDR. The Council recognized the benefits of that proactive participation as a result of effective coordination through cross-cutting activities of DPM. The Council acknowledged the WCDR outcomes reflected in the Hyogo Declaration and Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters to provide a vehicle to expand the international recognition of the importance of hydrometeorological information and services to disaster risk reduction. The Council confirmed that that should lead to enhance recognition and opportunities for the NMHSs as a critical component of disaster risk reduction infrastructure at the national and regional levels. The Council noted that the Framework for Action called for an integrated, multi-hazard approach to disaster risk reduction, providing five high priority action areas, including:

- (a) Ensure that disaster risk reduction was a national and a local priority with a strong institutional basis for implementation;
- (b) Identify, assess and monitor disaster risks and enhance early warnings;
- (c) Use knowledge, innovation and education to build a culture of safety and resilience at all levels;
- (d) Reduce the underlying risk factors;
- (e) Strengthen disaster preparedness for effective response at all levels.

The Council acknowledged that WMO and NMHSs were in an excellent position to take a leadership role in the international to national levels, respectively, particularly in the second high priority action area, while also contributing to the other four areas. The Council stressed the need for WMO and NMHSs to respond proactively to the Hyogo Framework for Action.

3.9.2 The Council noted the Secretariat's efforts to organize the First Meeting of the Executive Council Advisory Group on Natural Disaster Prevention and Mitigation

(EC-AGDPM) (18-19 March 2005), as a critical follow up action to WCDR. The Council noted that recommendations of the EC-AGDPM were critical for the development of clear strategic direction and related actions for WMO's DPM Programme. The Council noted the report of the chairperson of the EC-AGDPM. The Council particularly noted the EC-AGDPM recommendations, including:

- (a) Revision of the DPM Implementation Plan by building on the DPM Implementation Plan approved by the fifty-sixth session of the Executive Council in accordance with the recommendations of EC-AGDPM;
- (b) Identify and develop strategic partnerships at the regional and international levels and assist the NMHSs to identify partnerships at the national level;
- (c) Within a "multi-hazard" framework, facilitate a comprehensive survey and mapping of regional and national capabilities, factoring in the requirements of the disaster risk management community;
- (d) A matrix of DPM-related activities of all WMO major Programmes to determine scope, synergies, gaps and redundancies and related budget;
- (e) Identify concrete regional and subregional projects to be implemented with a systematic coordinated approach building on WMO's Programme activities and addressing regional and national priorities;
- (f) Identify, document and share "best practices" when appropriate linkages between the NMHSs and the risk management community had been achieved and benefits of their services were realized. That should be carried out in collaboration with WMO Programmes, NMHSs, regional associations, technical commissions and other key partners;
- (g) Build a catalogue of weather-, water-, climate-related and other hazards around the world, as well as an annual yearbook of hazards; furthermore, enhance disaster databases such as that of the Center for Research on the Epidemiology of Disasters by adding user-friendly analysis tools and interfaces with other key disaster databases;
- (h) The critical need to develop the Educational and Public Outreach Programme of the NMHSs targeted at their stakeholders (disaster risk management authorities, media and general public, etc.) to be carried out in collaboration with the PWS Programme and other relevant WMO Programmes;
- (i) Strong support of WMO's contribution to the development of the Tsunami Early Warning System in the Indian Ocean and other regions at risk, within a multi-hazard framework;
- (j) Identify and implement mechanisms to incorporate the input of the user community on international, regional and national levels for development of relevant and useful products and services by NMHSs;
- (k) The input of the user community on the international, regional and national levels was critical for the development of relevant and useful products and services by the NMHSs. However, effective mechanisms to incorporate users' input and requirements needed to be considered;
- (l) NMHSs should proactively establish the linkages with the risk management and emergency authorities;

- (m) Participate proactively in the Third International Conference on Early Warning, sponsored by the Government of Germany, in March 2006;
- (n) Develop effective communication and knowledge management mechanisms building on the WMO DPM Website to facilitate cross-cutting activities;
- (o) Develop and implement a proactive advocacy plan for promoting a culture of prevention and role of NMHSs and WMO in disaster risk reduction;
- (p) Determine and demonstrate the most effective mechanisms for working within the existing WMO structures, including the potential for strengthening the existing initiatives, in particular with respect to meeting the need of the DPM stakeholders;
- (q) The need for additional professional and administrative staffing and other resources to the DPM Programme Office to coordinate and execute DPM Programme activities effectively as a high priority area for WMO.

3.9.3 The Council acknowledged:

- (a) The timely response of WMO in identifying and offering its relevant core capabilities to the development of the Indian Ocean Tsunami Early Warning System;
- (b) The coordinated efforts of WMO with UNESCO and its IOC and the ISDR Secretariat;
- (c) The proactive response of WMO and the recognition within the international community as one of the leading organizations contributing to the establishment of the Indian Ocean Tsunami Early Warning System.

The Council noted that that had been achieved through coordination activities of the DPM Programme with WMO Programmes to develop a clear strategy, identify relevant areas of contributions, and develop three concrete plans of action. The Council particularly acknowledged that the plans for GTS upgrades to support tsunami-related information and warnings were not only a critical contribution to the Indian Ocean Tsunami Early Warning System but also to the strengthening of the GTS, which further enhanced the Members capacity as a whole. The Council stressed the need for continued WMO collaboration with the United Nations Special Envoy on Tsunami Recovery, former President Clinton of the United States, in promoting that tsunami early warning systems should be developed within a multi-hazard approach and for all regions at risk. The Council requested the Secretary-General for continued contributions in the Indian Ocean and other regions at risk, within the cross-cutting framework of DPM.

3.9.4 The Council noted the critical need for WMO's strategic partnerships with other organizations at the regional and international levels. The Council acknowledged that WMO established a partnership with UN/ESCAP in hosting the typhoon committee in the Asia Pacific over the last four decades. The Typhoon Committee had promoted effective partnership among NMHSs and DPM agencies at the national and regional levels. Such experiences could be used in formulating the DPM Programme. The Council further noted the WMO initiative with UNESCO related to flood forecasting and impacts as an example of important partnerships to be built upon. The Council stressed that also new partnerships should be developed based on the complementary roles and activities of the organizations, their value added towards

advancing DPM goals as well as contributions to the area of disaster risk reduction as a whole. The Council supported the efforts of the Secretariat's systematic approach to identifying and evaluating potential partners through the ISDR Interagency Task Force for Disaster Reduction, conferences, and bilateral and multilateral meetings. The Council urged that the NMHSs seek targeted partnerships at the national level and through participation in the emerging National Disaster Reduction Platforms. The Council stressed the need for the Secretariat to support the NMHSs, particularly those in the developing and least developed countries and SIDS, in their efforts to establish their partnerships at the national level.

3.9.5 The Council acknowledged the important follow up actions of the Secretariat to revise the WMO DPM Implementation Plan by building on the Implementation Plan approved during its fifty sixth session and including the recommendations of the EC-AGDPM. The Council noted the momentum generated by the WCDR; the tragic 26 December 2004 Indian Ocean tsunami disaster; the Conference on Small Island Developing States (Mauritius, January 2005); and GEO. The Council stressed that those presented a window of opportunity and that WMO should proceed proactively and as a matter of priority with the activities outlined in the Revised Implementation Plan of the DPM Programme presented in **Annex IV** to this report.

3.9.6 The Council stressed that within a multi-hazard framework, regional and national survey of capabilities (strength and weaknesses), gaps and needs of WMO's core areas of activities related to DPM—including, technical capabilities, capacity-building and training, educational and public outreach programmes of the NMHSs and the linkages of the NMHSs with risk management and emergency structures—should be carried out as a high priority activity of the DPM Programme.

3.9.7 The Council stressed the leading role of WMO in participating in: (a) the Global Survey of the Early Warning Systems requested by the United Nations Secretary-General, Kofi Annan, in his report to the General Assembly (In Larger Freedom: Towards Development, Security and Human Rights for All, A/59/2005, 21 March 2005); and (b) the third International Conference on Early Warning, to be held in March 2006. The Council requested the Secretary-General to take appropriate actions to ensure WMO's proactive contributions to those events.

3.9.8 The Council underlined the necessity to develop a standard methodology for the collection of information about hazardous hydrometeorological events causing damages and, where possible and available, the estimate of damages caused by those events. The Council urged that based on such methodology, that statistical information should be delivered by NMHSs to the WMO Secretariat on a regular basis (once a year) to be further summarized for information purposes. That information should also be submitted to the United Nations for further use.

3.9.9 The Council recognized that within the high priority activities of the DPM Programme, three areas should be considered as highest priority: (a) facilitation of strategic partnerships; (b) integration of cross-cutting DPM activities of WMO Programmes; and (c) hazard mapping and risk assessment capabilities for hydrometeorological hazards.

3.9.10 The Council noted that performance measures to assess WMO DPM activities were essential to ascertain success. Those measures should be visible, measurable, quantifiable and actionable. To that end, the Council recommended to the Secretariat and interested Members to develop specific performance measures. The Council further suggested that the DPM performance measures could be used to assist in setting future priorities and to ensure that the cross-cutting activities WMO Programmes addressed those priorities in a sustainable and effective manner.

3.9.11 The Council recognized the benefits of the DPM cross-cutting Programme and the Secretary-General's initiatives and deep commitment to enhancing WMO's contributions to its Members through enhanced capabilities and contributions of the NMHSs to disaster risk reduction. The Council also recognized that the implementation of DPM activities of NMHSs required their strong cooperation with various disaster prevention, mitigation and emergency authorities of the countries.

3.9.12 The Council noted that access to expertise within the areas, including aspects for integration of hydrological and meteorological services and disaster risk assessment and management, would be critical to the development of the DPM Programme. The Council urged the Members to consider secondments to the DPM Programme Office as a means of providing needed expertise.

3.9.13 The Council recognized that in light of the demonstrated benefits of the cross-cutting activities of the DPM Programme, there was a need for strengthening the DPM Programme to ensure effective implementation of the DPM Strategy. In that respect, the Council adopted **Resolution 9 (EC-LVII)**.

3.10 WMO SPACE PROGRAMME (agenda item 3.10)

3.10.1 The Executive Council was informed of activities within the WMO Space Programme, including relevant results from the fifth session of the WMO Consultative Meetings on High-level Policy on Satellite Matters. The Council agreed that WMO Consultative Meetings on High-level Policy on Satellite Matters had matured into a most effective mechanism for a dialogue between WMO and space agencies. The Council also agreed that the Consultative Meetings would be an effective avenue for enhanced WMO coordination with the space-component of the GEOSS. Recommendations and guidance from the Consultative Meetings had greatly enhanced the rapid progress made in the WMO Space Programme as well as the growth of the space-based component of the GOS resulting in improved utilization of satellite data, products and services by WMO Members. It also noted that a status report on the space-based sub-system of the GOS was contained in agenda item 3.1. The Council noted with pleasure recent information concerning several space agency activities, including the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), the Japan Meteorological Agency (JMA), the NOAA/National Environmental Satellite, Data and Information Service (NESDIS) and ESA. Additionally, the Council was informed by JMA that MTSAT-1R would become operational on 28 June 2005. JMA also expressed its gratitude to NOAA for the contingency back-up provided by

GOES-9 for the fact and that it had established a long-term contingency agreement with NOAA.

WMO SPACE PROGRAMME IMPLEMENTATION

3.10.2 Specific activities undertaken by the WMO Space Programme in response to its terms of reference covered matters related to the fundamental operations of NMHSs including: (a) education and training; (b) the International Geostationary Laboratory (IGeoLab); (c) the Integrated Global Data Dissemination Service (IGDDS); (d) the operational use of research and development satellite capabilities and their transition to operational meteorological satellites where appropriate; and (e) the WMO Space Programme as a core for the space component of GEOSS.

EDUCATION AND TRAINING

3.10.3 With regard to the Centres of Excellence of the Virtual Laboratory for Education and Training in Satellite Meteorology, the Council welcomed the offer by Oman to host a new Centre of Excellence in noting that there was a preliminary offer to co-sponsor it by EUMETSAT. The Council recalled the basic principle that education and training should occur in the working language for the local meteorological staff. The present configuration of the six Centres of Excellence provided for education and training in Chinese, English, French and Spanish. However, a gap existed for Arabic-speaking countries. Oman had expressed its strong willingness to support a Centre of Excellence for Education and Training in Satellite Meteorology in which the Omani National Meteorological Service would work jointly with the Sultan Qaboos University and make available their considerable expertise. Oman had also indicated that it would provide the necessary financial and staff resources to meet its responsibilities within the Virtual Library framework. The Council noted with pleasure that JMA would provide some training material to the Centre of Excellence in Oman.

3.10.4 The Council also noted activities by the Russian Federation, supported by WMO and EUMETSAT, to hold regional training events in Moscow in satellite meteorology for members of the Commonwealth of Independent States and the Baltic States. The Council agreed that such activities were vital to improve the utilization of satellite data and products and suggested that the Russian Federation consider further development of its activities with the possibility to join eventually the Virtual Library and thus fill a gap for a Centre of Excellence where the Russian language would be the basis for training events.

IGeoLab

3.10.5 The Council was informed that CGMS-XXXII had supported the concept of a IGeoLab which was focused on sharing the benefit of a geostationary demonstration mission across several space development agencies, operators of operational meteorological satellites, and users.

3.10.6 The Council agreed that the IGeoLab was of utmost importance to space agencies and the NMHSs and user communities of WMO Members, as well as to the further growth and enhancement of the space-based component of the GOS. Such further growth would also increase the WMO Space Programme's importance to WMO Members. Thus, it

requested the WMO Space Programme to continue its active coordination role as well as undertake two activities:

- (a) For long-term planning, to develop further the IGeoLab White Paper in consultation with space agencies participating in the Consultative Meetings. Long-term planning for IGeoLab would involve many complex issues. A more detailed description of the concept should be presented to the next session of the Consultative Meetings;
- (b) For the short-term, two focus groups should be established, one for each of the test proposals, with nominated members from the space agencies.

INTEGRATED GLOBAL DATA DISSEMINATION SERVICE

3.10.7 The Council noted that the EUMETSAT ATOVS Retransmission Service (EARS), as an advanced dissemination method (ADM), had increased real time access (within 30 minutes) to ATOVS data three- to four-fold in much of the northern hemisphere. Near-real-time access to ATOVS data was important for WMO Members with NWP capability. The Council recalled that the WMO Space Programme Implementation Plan contained a description of an IGDDS that would connect regional ADMs into a global service. A Coordination Group for Meteorological Satellites (CGMS)/WMO Regional ATOVS Retransmission Service (RARS) Workshop had been held on 16-17 December 2004 and hosted by EUMETSAT at its Headquarters in Darmstadt, Germany to discuss possibilities towards the development of RARS and IGDDS. At the Workshop, a number of currently unfulfilled user requirements for ATOVS data were identified around the globe. In order to meet some of those unfulfilled user requirements, the Council agreed that at least two RARS (South American RARS; and Asia-Pacific RARS) should be further considered and developed. The Council was informed that China would continue its cooperation with other WMO Members towards the establishment of a RARS in the Asia-Pacific region. JMA noted that it would also continue its efforts to establish the Asian-Pacific RARS including insertion of satellite data into the GTS and possibly reception of satellite data from its station in Antarctica. The Council noted that IGDDS had the potential to be a core component of GEOSS as described in the following axioms.

WMO SPACE PROGRAMME AS ONE OF THE CORE CONTRIBUTORS TO GEOSS

3.10.8 The Council noted that the fifth session of the WMO Consultative Meetings on High-level Policy on Satellite Matters had reviewed a discussion paper on how the WMO Space Programme could be one of the core contributors to the space component of GEOSS. With regard to the GEOSS space component, the Council agreed that the similarities of objectives of GEOSS and WMO fully justified the willingness of WMO, through its recently established WMO Space Programme, to make a significant contribution in the GEOSS process. The Council agreed that the WMO Space Programme was well placed to participate in GEOSS activities and that WMO should strongly support actions that addressed the following four axioms:

- (a) With the creation of GEOSS, efforts should be made to minimize the risk of duplication with pre-existing similar

(although less ambitious) initiatives and, eventually, of superposition of systems capabilities. Due, in particular, to its strong links with a user community and its focused approach, WMO, through its Space Programme, should play a significant role in establishing and maintaining strong coordination with the various stakeholders and users of GEOSS and strengthen the coordination needed to warrant the interoperability of existing systems and the progressive integration of future ones;

- (b) GEOSS should benefit from WMO's experience of the space-based component of the GOS as a model for integrating independent space observation capabilities into a single system. The following actions initiated through the WMO Space Programme should be further supported in order to be progressively migrated into GEOSS:
 - (i) Integration of the space-component of the various observing systems throughout WMO Programmes and WMO-supported Programmes;
 - (ii) Contingency planning;
 - (iii) The Integrated Global Data Dissemination Service;
- (c) The multiple benefits gained from the integration of a space-based component in the WWW GOS (global, fair, cost-effective) should be used to promote the potential benefits that GEOSS would bring to society;
- (d) The most straightforward means of including the space component of the integrated WMO GOS as a core contributor to the space component of GEOSS will be to assist the GEO Secretariat in the implementation of actions and activities identified in the GEOSS Implementation Plan, i.e., agreements to make systems interoperable and to share data; collective optimization of the observation strategy; cooperative gap filling; commitments to observational adequacy and continuity; data transfer and dissemination; collaboration on capacity-building; and harmonization of methods and application of observation standards. The collocation of the GEO Secretariat on the premises of WMO in Geneva should greatly facilitate that effort.

3.10.9 The Council noted with pleasure that considerable and rapid progress had been made in the first 18 months for the WMO Space Programme. The WMO Space Programme Implementation Plan provided a solid framework to meet the goals and objectives established by Fourteenth Congress. There were already noteworthy achievements and more were anticipated. Thus, it strongly encouraged WMO Members to support the WMO Space Programme including contributions to the Space Programme Trust Fund and secondments to the Space Programme Office. It further encouraged the Secretary-General to seek opportunities to strengthen the Space Programme Office staff. The Council also expressed its deep gratitude to all space agencies for their efforts to make satellite data, products and services available to all WMO Members. The space-based subsystem of the GOS had become vital in allowing WMO Members to meet their mandates and would continue to do so in the future.

3.10.10 The Council noted with pleasure the progress in the implementation of the Preparation for the Use of Meteosat Second Generation (MSG) in Africa (PUMA) Project. It recalled that the PUMA Project had as a primary objective the installation of new receiving stations in RA I countries that

provided access to MSG data. The Project had been financed by the European Commission in collaboration with EUMETSAT, WMO and regional entities in Region I. The current focus for the Project was the final deployment of all receiving stations by September 2005. The Council agreed with the need for long-term continuity and reliability of PUMA stations in order to satisfy existing national mandates as well as for capacity-building initiatives expected within the new European Commission Project entitled African Monitoring of the Environment for Sustainable Development (AMESD). In recognizing that the existing PUMA project did not address such long-term continuity and reliability, it encouraged EUMETSAT to review possible mechanisms and solutions working in collaboration with WMO Members, the European Commission and assistance from the WMO Space Programme, as appropriate. The Council was also informed that at the meeting of the Working Group on Planning and Implementation of the WWW in RA III, held in Buenos Aires, Argentina in May 2005, EUMETSAT had been encouraged to increase the availability of satellite data to RA III Members.

4. PROGRAMME SUPPORT SERVICES AND PUBLICATIONS (agenda item 4)

4.1 FINANCIAL MATTERS (INCLUDING THE REPORT OF THE EXTERNAL AUDITOR) (agenda item 4.1)

REPORT OF THE WMO AUDIT COMMITTEE

4.1.1 The Executive Council noted with appreciation the comprehensive report by the chairperson of the WMO Audit Committee, Mr U. Gärtner. The Council noted the various recommendations of the Committee contained **Annex V** to this report. The Council took account of the recommendations in making its decisions under the various agenda items.

CASE OF FRAUD

4.1.2 The Council noted the summary presentation and report on the fraud investigation by the Secretary-General. The Council expressed appreciation to Mr U. Gärtner, the chairperson of the Audit Committee, for the work of the Committee and for the information provided to the Council.

4.1.3 The Council took note of the final report on the fraud investigation and decided that the internal investigation should be resumed if additional, substantial information became available.

4.1.4 The Council noted with appreciation the good collaboration with the Swiss justice. It encouraged the Secretary-General to continue efforts towards recovery of defrauded funds.

4.1.5 The Council further noted the report of the Chief, Internal Audit and Investigation Service.

CONSIDERATION OF THE ACCOUNTS FOR THE YEAR 2004

4.1.6 The Council considered and approved the audited financial accounts of the General Fund, the Working Capital Fund and the other special and trust funds for the year 2004.

4.1.7 The Council noted and welcomed the fact that the External Auditor had issued an unqualified opinion on the Organization's accounts for the year 2004.

4.1.8 The Council noted that the expenditure for 2004 amounted to CHF 59 872 600, compared to the approved

appropriation for 2004-2005 of CHF 130 662 900. The Council also noted that the Organization concluded the year with a cash surplus of CHF 18.6 million, comprising CHF 5.6 million from the year 2004 and CHF 13 million from the thirteenth financial period. The Council recalled that Fourteenth Congress, in Resolution 30 (Cg-XIV) Maximum expenditures of the fourteenth financial period, approved maximum expenditure of CHF 253.8 million for the fourteenth financial period, of which CHF 4 million would be funded from any cash surplus resulting from the thirteenth financial period.

4.1.9 The Council also recalled that, over and above the CHF 4 million, it had approved, in Resolution 20 (EC-LVI)

High priority activities for the 2004-2005 biennium, an allocation of CHF 3.5 million of the cash surplus arising from the thirteenth financial period for fully costed high priority activities for the biennium 2004-2005 which should be completed within the fourteenth financial period.

4.1.10 The Council noted with concern the persisting weaknesses in some areas of internal control and urged the Secretary-General to address that situation.

4.1.11 The Council also noted the substantial amounts of outstanding assessed contributions of certain Members and urged them to clear their dues at an early date. It also noted that although there was an improvement in the collection of arrears of contributions, it decided to keep the matter under review and requested the Secretary-General and the Financial Advisory Committee to report any new developments to its fifty-eighth session. In that context, the Council considered the proposals put forward by the Secretary-General.

4.1.12 The Council adopted **Resolution 10 (EC-LVII)**.

SETTLEMENT OF LONG OUTSTANDING CONTRIBUTIONS

4.1.13 The Council at its fifty-sixth session, noted from the analysis made by the Secretary-General regarding the payment agreement that the number of Members in arrears had not evolved significantly over the recent years. It furthermore noted that, in order to alleviate the financial burden of those Members and to enable them to participate fully in the activities of the Organization, one way might be to increase the period of the settlement of arrears. It also requested the Secretary-General to review the issues and make proposals for consideration at its fifty-seventh session.

4.1.14 The Council noted the information provided by the Secretary-General on the history of the number of Members deprived of voting rights in the Organization and on the yearly instalments payable under payment agreements, if concluded. It also noted the information on the comparison made with the number of Members in similar situations in other Organizations of the United Nations system and on the periods of payment approved in those Organizations to encourage payment of arrears of assessed contributions.

4.1.15 The Council reviewed the following proposals submitted by the Secretary-General for encouraging Members facing difficult financial situations to settle their long outstanding contributions:

- (a) In case the yearly instalment under a payment agreement exceeded 200 per cent of the Member's assessed contribution at the time of conclusion of such agreement, the period for payment could be extended up to a maximum of 15 years;

- (b) Members who did not comply with the payment terms set out in the payment agreement might:
- (i) Re-enter the agreement provided that the required payments had been made; or
 - (ii) Enter into a new payment agreement for the settlement of arrears, provided the agreement of the Executive Council had been obtained;
- (c) Payment by a Member to settle its arrears to recover its voting rights needed to be credited to WMO's bank account or received by the WMO Secretariat at least one week prior to the beginning of the sessions of constituent bodies so that the Member might be eligible to vote during the session;
- (d) A trust fund was established to receive voluntary contributions to alleviate the payment of arrears by Members in extremely difficult situation.

4.1.16 The Council requested the Secretary-General to analyse further possible mechanisms to facilitate the settlement of long outstanding contributions and to report to the fifty-eighth session of the Executive Council.

STRENGTHENING OF INTERNAL OVERSIGHT

4.1.17 The Council noted the development of internal oversight in WMO and the growing range, nature and volume of relevant activities required of the Service. In order to respond adequately to the requirement for audit services, the Council:

- (a) Requested the Secretary-General to strengthen the internal audit services on an urgent basis within the budget envelope proposed for the biennium 2006-2007; and
- (b) Requested the Secretary-General to conduct a needs assessment of the audit services and to examine the options of outsourcing some or all of the internal audit services and to report to the fifty-eighth session of the Executive Council.

FOLLOW UP TO THE RECOMMENDATIONS OF THE EXTERNAL AUDITOR AND THE AUDIT COMMITTEE

4.1.18 The Council took note of the recommendations of the External Auditor and the Audit Committee and adopted:

- (a) **Resolution 11 (EC-LVII)** regarding the revision of the terms of reference and membership of the Audit Committee; and
- (b) **Resolution 12 (EC-LVII)** regarding the establishment of a Task Force to review the role of the Financial Advisory Committee vis-à-vis the Audit Committee.

4.1.19 The Council noted a proposal to include two additional financial experts as members of the Audit Committee rather than only one additional financial expert, as proposed in Recommendation 2.4 of the Audit Committee. The Committee noted that the review of the operation and mandate of the Bureau was covered by the work of the newly-established Executive Council Working Group on the Evolution of NMHSs and WMO.

4.2 ADMINISTRATIVE MATTERS (agenda item 4.2)

CODE OF ETHICS FOR WMO

4.2.0.1 The Executive Council welcomed the measures taken by the Secretary-General to develop a Code of Ethics for

WMO. It took note of the Progress Report on the work completed to date and looked forward to the presentation of a final version of the WMO Code of Ethics at its next session.

4.2.0.2 It also supported the decision by the Secretary-General to implement immediately in the Secretariat, on an interim basis, the Standards of Conduct for the International Civil Service, promulgated by the International Civil Service Commission (ICSC). Noting that, as a framework, while that latter instrument offered the advantage of common system standards of conduct, it remained silent on some of the issues of current concern to WMO. The Council was of the view that the Code of Ethics for WMO should address all such issues, and that the appropriate framework adopted should incorporate best practices, drawing as necessary on models within or outside the United Nations system, including both public and private sector codes of ethics or conduct, as relevant and applicable. To that end, the Council invited Members to share expertise and recommendations on a Code of Ethics with the Secretary-General for consideration by the Task Force.

4.2.1 STAFF MATTERS (agenda item 4.2.1)

GENDER ISSUES IN WMO

4.2.1.1 The Executive Council took note of the progress achieved since its fifty-sixth session and asked the Secretary-General to prepare a gender action plan and to provide the necessary resources for its implementation (see **Annex VI** to this report).

4.2.1.2 The Council noted that Fourteenth Congress (general summary paragraph 9.1.26 of the *Abridged Final Report with Resolutions of the Fourteenth World Meteorological Congress*, WMO-No. 960) acknowledged the need to organize a future third conference to review progress and consider further actions to ensure the increased participation of women in meteorology and hydrology, and requested the Secretary-General to make the appropriate arrangements for that purpose in the current financial period.

WMO CONSULTANTS ENGAGED IN 2004

4.2.1.3 The Council appreciated the document presented by the Secretariat for the first time to the Executive Council, took note of the information contained in the appendices of Progress/Activity reports and requested the Secretary-General to provide a report on consultants engaged in 2005 to its fifty-eighth session.

AMENDMENTS TO THE STAFF RULES

4.2.1.4 The Council noted the amendments to the Staff Rules, applicable to WMO staff made by the Secretary-General since its fifty-sixth session. It further noted that those amendments had been made in accordance with decisions of the United Nations General Assembly or promulgated by the ICSC in accordance with its Statute.

4.2.1.5 The Council requested that the Secretary-General to report in future the actual textual changes to the Staff Rules in addition to providing a justification for having made those changes. In addition, the Council requested the Secretary-General to harmonize WMO's policy regarding paternity leave with that established for the United Nations common system, within the parameters set forth in paragraph 211 of the

International Civil Service Commission's report (A/59/30 (Volume I)).

4.2.1.6 The Council requested the Secretary-General to review the option to harmonize WMO's policy regarding education grants for staff members living or working in their own countries with those of United Nations Staff Regulation 3.2 and to report to its fifty-eighth session. The Council noted that United Nations Staff Regulation 3.2 provided for the payment of education grants to a staff member residing and serving outside his or her recognized home country.

4.2.1.7 The Council requested the Secretary-General to review the option to harmonize WMO's policy regarding subsistence rates for middle and senior level staff members with that of the United Nations and to report to its fifty-eighth session. The Council noted that since 1 January 2004, the United Nations no longer paid higher subsistence rates to such staff members in accordance with United Nations General Assembly Resolution 58/270 — Questions relating to the proposed programme budget for the biennium 2004-2005, paragraph 31.

PENSIONABLE REMUNERATION OF UNGRADED OFFICIALS

4.2.1.8 The Council noted that, in accordance with the provisions of Article 54(b) of the Regulations of the United Nations Joint Staff Pension Fund, the scale of remuneration for the Professional and higher categories must be adjusted with the same effective date and by the same percentage as the net remuneration increase. The Council further noted that the ICSC had promulgated the consequent revised scale of pensionable remuneration applicable to those categories of staff and that comparable United Nations agencies (the International Telecommunication Union (ITU) and the Universal Postal Union (UPU)) had consequently adjusted the pensionable remuneration of their ungraded officials. The Council therefore decided also to apply with retroactive effect from September 2004 the following levels of annual pensionable remuneration:

Secretary-General	US\$ 276 024
Deputy Secretary-General	US\$ 255 101
Assistant Secretary-General	US\$ 236 079

4.2.1.9 The Council requested the Secretary-General to take appropriate action as required by the decision thus taken.

SALARIES OF UNGRADED OFFICIALS

4.2.1.10 The Council noted that, in December 2004, the United Nations General Assembly had adopted a new base salary scale for staff in the Professional and higher categories, which came into effect on 1 January 2005. It further noted that that scale reflected the consolidation, on a no-gain no-loss basis, of 1.88 multiplier points of post adjustment into the net base salaries.

4.2.1.11 The Council noted that in accordance with Staff Regulation 3.1, the revised salary scale showing the new net amounts had been implemented in the Secretariat in respect of Staff members in grades P.1 to D.2.

4.2.1.12 The Council recalled that Fourteenth Congress had decided to authorize the Executive Council to carry out any adjustment of salary in respect of the Secretary-General, the Deputy Secretary-General and the Assistant Secretary-General, which might become necessary if an increase in the

salaries of comparable United Nations staff occurred during the fourteenth financial period.

4.2.1.13 The Council noted that comparable United Nations agencies (ITU and UPU) were adjusting or had adjusted the salaries of their ungraded officials in accordance with the rates below.

4.2.1.14 Based on the decisions of the United Nations General Assembly, the Council decided to set the annual rates of net basic salary of WMO ungraded officials with retroactive effect from 1 January 2005 as followed:

	<i>Net with dependants</i>
Secretary-General	US\$ 144 461
Deputy Secretary-General	US\$ 132 603
Assistant Secretary-General	US\$ 121 822

4.2.1.15 The Council requested the Secretary-General to take appropriate action, as required, by the decision thus taken.

ANNUAL REPORT OF THE INTERNATIONAL CIVIL SERVICE COMMISSION

4.2.1.16 The Executive Council took note of the thirtieth annual report of the ICSC, submitted in accordance with Article 17 of the Commission's Statute.

VIEWS OF THE STAFF ON THEIR CONDITIONS OF SERVICE

4.2.1.17 The President of the Staff Association expressed her appreciation on behalf of the staff for having the opportunity to address the Executive Council and to submit a document on the views of staff on their conditions of service.

INTERNAL MATTERS OF THE SECRETARIAT

4.2.1.18 The Council welcomed the newly elected members of the Staff Committee during the transition period and appreciated that a document had been prepared by them for the attention of the Council.

4.2.1.19 The Council was pleased to note that the staff was associated with the efforts of the Secretary-General in building confidence in the new management approach as well as in improving the efficiency of the Human Resources Division.

4.2.1.20 The Council expressed its appreciation for the prompt and collaborative work carried out by the staff and administration representatives in the preparation of a Code of Ethics, and noted that the Secretary-General had approved the set of principles proposed by the Joint Task Force on the Code of Ethics established by the Joint Consultative Committee.

4.2.1.21 The Council was informed of the concern that staff had about the uncertainties regarding job security for some staff with respect to the restructuring of certain departments. It assumed that the Secretary-General would continue efforts to ensure full transparency during that difficult process and to find ways to continue offering reasonably stable conditions of employment to all staff who were performing work for the day-to-day operations of the Secretariat.

CONTRACTUAL STATUS OF TEMPORARY STAFF

4.2.1.22 The Council was informed that the Staff representatives and the Secretary-General, have had constructive discussions and examined proposals on the issue of reviewing the rules governing the employment of temporary staff. Those proposals aimed to address relevant concerns expressed by the previous Executive Councils.

4.2.1.23 The Council noted with appreciation the continuing efforts of the Secretary-General, as requested by Fourteenth Congress, to discontinue the practice of employing retired people and consultants to perform functions of a routine nature.

EARLY RETIREMENT PROGRAMME (ERP) AND VOLUNTARY SEPARATION PROGRAMME (VSP)

4.2.1.24 The Council noted that several staff members had requested the Secretary-General to look into the possibility of introducing ERP and VSP on a regular basis, or at least to offer them more frequently. The Council requested the Secretary-General to consider those requests in consultation with the Staff Committee.

REPORT ON APPOINTMENTS, PROMOTIONS, NOMINATIONS AND TRANSFERS OF STAFF IN THE PROFESSIONAL CATEGORY AND ABOVE

4.2.1.25 In accordance with Article 21(b) of the Convention, the Council examined and approved the appointments made by the Secretary-General since its fifty-sixth session, as follows:

<i>Name and nationality</i>	<i>Title, grade and organizational unit</i>	<i>Effective date</i>
GOODRICH, Mr D.M. (USA)	Director (D.1), Global Climate Observing System Secretariat	15 June 2005
CHEN, Mr P. (Canada)	Chief (P.5), Data-processing and Forecasting System Division, World Weather Watch Department	8 September 2004
REQUENA, Mr F. (Argentina)	Executive Assistant to the Secretary-General (P.5)	14 September 2004
GOLNARAGHI, Ms M. (USA)	Chief (P.5), Natural Disaster Prevention and Mitigation Office, Deputy Secretary-General's Office	26 September 2004
CABRERA, Mr E.E. (Colombia)	Chief (P.5), Ocean Affairs Division, Applications Programme Department	29 January 2005
BADDOUR, Mr O. (Morocco)	Chief (P.5), World Climate Data and Monitoring Programme Division, World Climate Programme Department	15 July 2005
HRCEK, Mr D. (Slovenia)	Subregional Representative for Europe (P.4), Regional and Technical Cooperation Activities for Development Department	1 July 2004
DARWISH, Mr A. (Egypt)	Translator/Reviser (P.4), Linguistic Services and Publications Department	1 September 2004
RUTASHOBYA, Mr D.G. (Tanzania)	Scientific Officer (P.4), Hydrology Division, Hydrology and Water Resources Department	8 January 2005
STEFANSKI, Mr R.J. (USA)	Scientific Officer (P.4), Agricultural Meteorology Division, World Climate Programme Department	15 January 2005
RÜEDI, Mr I. (Switzerland)	Programme Coordination Officer (P.4), World Weather Watch Department	1 February 2005
NICKOVIC, Mr S. (Serbia and Montenegro)	Scientific Officer (P.4), Environment Division, Atmospheric Research and Environment Programme Department	17 April 2005

ZHANG, Ms X. (China)	Head (P.3), Payroll and Pension Unit, Human Resources Division, Resource Management Department	24 January 2005
BALDWIN, Mr S.J. (UK)	Treasurer (P.3), Finance Division, Resource Management Department	31 January 2005
MASLINA, Ms N. (Russian Federation)	Editor (P.3), Linguistic Services and Publications Department	17 February 2005
GALATI, Mr F.G. (Switzerland/Italy)	Web Development Officer (P.3), Information Systems Division, Resource Management Department	1 May 2005
WESTERMEYER, Mr W. (USA)	Senior Scientific Officer (P.5), Secretariat of the Global Climate Observing System	1 November 2004

4.2.1.26 The Council further approved the extensions of appointment of staff beyond the statutory age of retirement initiated by the Secretary-General since its last session, as follows:

<i>Name and nationality</i>	<i>Title, grade and organizational unit</i>	<i>Duration</i>
CHACOWRY, Mr S. (Mauritius)	Director (D.2), Cabinet and External Relations	12 months to 30 November 2005
THOMAS, Mr A.R. (USA)	Director (D.2), Global Climate Observing System	a further 5 months to 31 May 2005
SCHIESSL, Mr D.C. (Germany)	Director (D.1), World Weather Watch Department (promoted D.2 on 1 October 2004)	12 months to 31 August 2005
ABE, Mr K. (Japan)	Chief (P.5), Tropical Cyclone Programme Division, Applications Programme Department	12 months to 31 August 2004 plus a further 12 months to 31 August 2005

4.2.1.27 The Council noted the nominations and/or promotions made by the Secretary-General since its last session as a result of competition after issuance of vacancy notices, as follows:

<i>Name and nationality</i>	<i>Title, grade and organizational unit</i>	<i>Effective date</i>
CHACOWRY, Mr S. (Mauritius)	Director (D.2), Cabinet and External Relations Office (reclassification from D.1)	1 October 2004
DAVIDSON, Mr K.D. (USA)	Director (D.2), World Climate Programme Department (reclassification from D.1)	1 October 2004
DIALLO, Mr H.M. (Niger)	Director (D.2), Regional and Technical Cooperation Activities for Development Department (reclassification from D.1)	1 October 2004
SCHIESSL, Mr D.C. (Germany)	Director (D.2), World Weather Watch Department (reclassification from D.1)	1 October 2004
HINSMAN, Mr D.E. (USA)	Director (D.1), WMO Space Programme Office, Deputy Secretary-General's Office (reclassification from P.5)	1 March 2005
TOYA, Mr T. (Japan)	Director (D.1), VCP, Global Programmes and Strategic Partnerships Office, Regional and Technical Cooperation Activities for Development Department (reclassification from P.5)	1 March 2005

NYENZI, Mr B.S. (Tanzania)	Director (D.1) World Climate Programme Department	15 June 2005
KORETSKI, Mr A.A. (Russian Federation)	Senior Planning Officer (P.5), Linguistic Services and Publications Department (promotion to the grade of the post)	9 November 2004

4.2.1.28 The Council noted the transfers and/or changes initiated by the Secretary-General since the last session, as follows:

<i>Name and nationality</i>	<i>Title, grade and organizational unit</i>	<i>Effective date</i>
DE GUZMAN, Mr R.A. (Philippines)	Designated Acting Director (D.2), Department of Regional Activities and Technical Cooperation for Development in addition to his duties as Director, Strategic Planning Office	1 March 2005
LIZANO VINDAS, Mr G (Costa Rica)	Designated Special Assistant to the Deputy Secretary-General (D.1)	23 June 2004
KONARÉ, Mr K. (Mali)	Designated Head (D.1), Regional Activities Coordination Office, Regional and Technical Cooperation Activities for Development Department	4 April 2005
NYENZI, Mr B.S. (Tanzania)	Designated Acting Director (P.5), World Climate Programme Department	1 November 2004
CHESTOPALOV, Ms K. (France)	Designated Acting Chief (P.5), Human Resources Division, Resource Management Department	3 November 2004
DRAGICHI, Mr I. (Romania)	Designated Acting Director (P.5), Education and Training Department	4 April 2005
GRANADOS-FERNANDEZ, Mr J.B. (Colombia)	Designated Chief (P.5), Information Management Division, Resource Management Department	4 April 2005
GUERRERO, Ms V.H. (Chile)	Designated Head (P.5), Recruitment and Training Unit, Human Resources Division, Resource Management Department	3 November 2004
LEE CHOON, Mr A.K. (Mauritius)	Designated Chief (P.5), Special Projects Office, Resource Management Department	4 April 2005
ILINE, Mr A. (Russian Federation)	Designated Acting Chief (P.4), Procurement and Travel Office, Resource Management Department	3 November 2004
KHOURY, Ms D. (Mauritius)	Designated Head (P.4), Entitlements and Administration Unit, Human Resources Division, Resource Management Department	3 November 2004
NGWIRA, Mr L.A. (Malawi)	Designated Acting Chief (P.4), Finance Division, Resource Management Department	4 April 2005
NICOLAS, Mr M. (France)	Designated Acting Chief (P.4), Common Services Division, Resource Management Department	1 August 2004
TOUKALEK, Ms V. (Bosnia and Herzegovina)	Designated Acting Chief (P.4), Information Technology Division, Resource Management Department	4 April 2005

4.2.1.29 The Council paid tribute to Mr H. Diallo, former Director of the Regional and Technical Cooperation Activities for Development Department for his contributions to the

promotion of WMO and activities in support of NMHSs, especially those of developing countries.

APPOINTMENT OF THE ASSISTANT SECRETARY-GENERAL

4.2.1.30 The Council considered the appointment of the Assistant Secretary-General in accordance with the Article 21(b) of the Convention and the procedure laid down by Tenth Congress (1987), recorded in general summary paragraph 9.4.9 of the *Abridged Report with Resolutions of the Tenth World Meteorological Congress* (WMO-No. 681). The Council approved the proposal of the Secretary-General to appoint Mr R.D.J. Lengoasa as Assistant Secretary-General.

PROCEDURES FOR THE APPOINTMENT OF DEPUTY SECRETARY-GENERAL AND ASSISTANT SECRETARY-GENERAL

4.2.1.31 The Council reviewed the existing procedures and considered the proposal of the Secretary-General relating to the appointments of the Deputy Secretary-General and the Assistant Secretary-General. As a result, the Council invited the Secretary-General to study the issue further with the aim of developing a suitable mechanism that:

- Took into account the need to ensure institutional continuity at the Executive Management level while sustaining flexibility in the appointments; and
- Enabled the acceleration of the decision-making process by obtaining the approval of such appointments on behalf of the Executive Council in between sessions of the Council.

4.2.1.32 The Council requested the Secretary-General to submit appropriate proposals on that matter to its fifty-eighth session.

4.2.2 OTHER ADMINISTRATIVE MATTERS (agenda item 4.2.2)

4.2.2.1 The Executive Council noted the information provided in the report on procurement activities in 2004.

4.2.2.2 The Council noted the information provided on new developments in the area of information and communication technology. The Council requested the Secretary-General to continue his support for the improvement and new development of computer applications, as necessary, to facilitate the efficiency of the Secretariat.

4.3 LANGUAGES AND PUBLICATIONS (agenda item 4.3)

4.3.1 Following consultations with Executive Council members, it was proposed to introduce track changes for Working Papers during constituent body sessions. The Council endorsed that proposal.

4.3.2 The Council noted the Annex to Resolution 22 (Cg-XIV) — Publications Programme for the fourteenth financial period. Taking into account the need for additional language versions of certain publications as well as the need for the cost-efficiency of improved language and publications services, the Council requested the Secretariat to continue to review the list of mandatory publications, to ensure a better information flow to Members and others through the Publications Programme. The review should take into consideration the priorities of Members, the availability of financial and human resources, and the optimum use of IT technology.

4.3.3 The Council endorsed the proposal, to be presented for consideration of Fifteenth Congress, to include the *Guidelines for the Education and Training of Personnel in Meteorology and Operational Hydrology* (WMO-No. 258) in the list of mandatory publications. That publication was designated to advise Members on desirable standards of meteorological education and training, and, in particular, presented the new WMO Classification of Personnel and updated curricula for training. In that connection, on 23 November 2003, ICAO introduced Amendment 164, “Qualifications and training of all aeronautical meteorological personnel”, to ICAO Annex 1 — Personnel licensing, which specifically stated that “the requirements for training and qualifications for all aeronautical meteorological personnel are the responsibility of the WMO and ... can be found in WMO Document 258”. The Council, therefore, agreed to recommend that the publication of the *Guidelines for the Education and Training of Personnel in Meteorology and Operational Hydrology* be upgraded to the level of mandatory publication to be issued in Arabic, Chinese, English, French, Russian and Spanish once every eight years.

4.3.4 Fourteenth Congress had been informed that the mandatory publication entitled *Compendium of Education and Training Facilities in Meteorology and Operational Hydrology* (WMO-No. 240), would soon migrate to a soft-copy Web presentation (see general summary paragraph 3.6.2.11 in the *Abridged Final Report with Resolutions of the Fourteenth World Meteorological Congress* (WMO-No. 960)). A subset of the Web version of that publication was available as a Word document and could be sent as hard copy to Members upon request only. That document was not formally edited, but was considered very useful for operational purposes since it was updated every year, while the traditional hard-copy version was to be updated only once every eight years. The Council endorsed the proposal, to be presented for consideration of Fifteenth Congress, to cease preparation and publication of the hard-copy version as a mandatory publication of WMO. Accordingly, that publication should be published only in electronic format (mainly in English) as a departmental publication to be updated annually.

5. PROGRAMME AND BUDGET (agenda item 5)

5.1 PROGRAMME AND BUDGET PROPOSALS FOR 2006-2007 (agenda item 5.1)

5.1.1 The Executive Council considered the Secretary-General’s proposals for the programme and budget proposals for the second biennium 2006-2007 of the fourteenth financial period (2004-2007). The Council appreciated the programme and budget proposals for the biennium 2006-2007 which were prepared within the limit of the maximum expenditures for the fourteenth financial period and in accordance with Resolutions 30 (Cg-XIV) — Maximum expenditures for the fourteenth financial period, and 31 (Cg-XIV) — Results-based budgeting, taking into account Resolution 19 (EC-LV) — Budget for the biennium 2004-2005.

5.1.2 The Council welcomed the improvements introduced in the new formats. It noted that the provision of additional and comprehensive budgetary information, regardless of the sources of funding, resulted in increased transparency. The Council also welcomed the new

programming approach for three cross-cutting programmes (the WMO Programme for the LDCs, the Natural Disaster Prevention and Mitigation Programme, and the WMO Space Programme) which was expected to enhance synergy and effective implementation of the WMO scientific and technical Programmes.

5.1.3 The Council considered Recommendations 3.1 and 3.2 of the Financial Advisory Committee. The recommendations of the Financial Advisory Committee with regard to the programme and budget for 2006-2007 were to approve the budget of CHF 126 630 200 for the biennium 2006-2007 and to adopt Resolution 13 (EC-LVII) by including, when authorizing the Secretary-General under point (1), reference to Financial Regulation 7.3 and under point (2), reference to Financial Regulation 4.2.

5.1.4 The Council approved the programme and budget for the second biennium 2006-2007 of the fourteenth financial period (2004-2007) amounting to CHF 126 630 200 and adopted **Resolution 13 (EC-LVII)**.

5.2 HIGH PRIORITY ACTIVITIES FOR THE BIENNIUM 2006-2007 (agenda item 5.2)

5.2.1 The Executive Council recalled that Fourteenth Congress agreed to suspend Financial Regulation 9.1 during the fourteenth financial period only, with respect to the distribution of any cash surplus which might result from the thirteenth financial period, and to delegate the Executive Council during the present financial period to allocate such cash surplus, over and above the CHF 4.0 million already used to finance partly the maximum expenditure for the fourteenth financial period, to fully costed high priority activities, as listed in Annex 2 to Resolution 30 (Cg-XIV) as guidance, which activities would be completed within the fourteenth financial period in the most cost-effective and efficient manner.

5.2.2 The Council considered the Secretary-General’s proposals for high priority activities for the biennium 2006-2007. The Council noted that the Secretary-General’s proposals for high priority activities for 2006-2007 amounted to CHF 5 477 000. That amount represented the remaining balance of the total cash surplus from the thirteenth financial period of CHF 12 970 100, after taking into account the previous allocation of CHF 4 million to finance partly the maximum expenditures for the fourteenth financial period and CHF 3 493 100 for high priority activities for 2004-2005.

5.2.3 The Council considered Recommendations 4.1 and 4.2 of the Financial Advisory Committee. The recommendations of the Financial Advisory Committee with regard to the high priority activities for 2006-2007 were to approve the allocation of CHF 5 477 000 from the cash surplus of the thirteenth financial period for high priority activities for 2006-2007 and to adopt Resolution 14 (EC-LVII) by including reference to Financial Regulation 4.2.

5.2.4 The Council approved the high priority activities for the biennium 2006-2007 and adopted **Resolution 14 (EC-LVII)**.

6. PRELIMINARY DISCUSSION ON THE PROGRAMME AND BUDGET FOR THE FIFTEENTH FINANCIAL PERIOD (2008-2011) (agenda item 6)

6.1 The Executive Council examined the proposal of the Secretary-General for the outline priorities and resources

for the fifteenth financial period 2008-2011. The Council considered Recommendation 7 of the Financial Advisory Committee and Recommendation 2.6 of the Audit Committee. The recommendations of the Financial Advisory Committee with regard to the preliminary discussion on the programme and budget for the fifteenth financial period were: (a) to take note of the proposal of the Secretary-General to submit a budget for the fifteenth financial period on the basis of zero real growth in the amount of CHF 262 million; (b) to request the Secretary-General to present programme and budget options for the fifteenth financial period based on zero nominal growth and zero real growth; (c) to request the Secretary-General to present a result-based programme performance report to facilitate comprehensive consideration of the programme and budget options for the fifteenth financial period; and (d) to request the Secretary-General to consolidate further the budgetary presentation by including, in particular, programme support income, interest income, income from sales of publications and from rental of facilities and to propose the necessary budget adjustment in the context of the proposed programme and budget for the fifteenth financial period (2008-2011). The Council also requested the Secretary-General to include in the budget presentation information on extrabudgetary resources. One member stressed that with regard to possible cash surplus arising from the fourteenth financial period, Financial Regulation 9.1 should be observed,

6.2 After discussion, the Council adopted **Resolution 15 (EC-LVII)**.

7. LONG-TERM PLAN (agenda item 4)

MONITORING AND EVALUATION OF THE IMPLEMENTATION OF THE 6LTP

7.1 The Executive Council agreed that an effective way for monitoring the implementation of the 6LTP was by ascertaining the contribution of the various programmes in the realization of the 6LTP strategies and associated goals. It noted that during the session, related programme reports were provided. It agreed that those should be taken into account in the preparation of the evaluation of the implementation of the 6LTP by its fifty-eighth session.

7.2 The Council noted the methodology for the preparation of the evaluation of the implementation of Long-term Plans. It requested the Executive Council Working Group on Long-term Planning to take into account the practice of obtaining evaluation from the presidents of technical commissions and regional associations, as well as from the Secretary-General, in preparing the draft evaluation.

7.3 The Council also noted that the 6LTP and its relevance were effectively taken into account in documentation and communications pertinent to more recent developments like the GEOSS, the WMO Space Programme and the Natural Disaster Prevention and Mitigation Programme including initiatives relating to the December 2004 earthquake and tsunami disaster.

7.4 The Council recognized that the evaluation of the 6LTP could be a very complex and difficult process, noting that there were varying degrees of sophistication in the articulation of activities and performance measures. Taking into account the resources available both to Executive Council

members and in the Secretariat, it agreed that the evaluation of the 6LTP should be carried out primarily in terms of the realization of the WMO strategies. In that connection, the Council requested its Working Group on Long-term Planning to consider the feasibility of some form of external evaluation, focusing on the realization of the WMO strategies on services provision (strategies 1 and 2).

FUTURE PROGRAMME STRUCTURE

7.5 The Council recognized changes in WMO's activities as a response to relevant developments. For instance, cross-cutting activities for natural disaster prevention and mitigation necessitated a review of how the various programmes interrelated and supported one another. Moreover, there was also a trend towards further integration of WMO activities such as those relating to the integrated observing system (including the GEOSS initiative) and the WMO Information System. Hence, in addition to the two existing cross-cutting programmes (Natural Disaster Prevention and Mitigation and Space Programmes), a consolidated observation system programme and WIS programme could be considered.

7.6 It recognized the need to link the WMO Programme structure to the WMO strategies in the Long-term Plan. The current programme structure could be retained and specific strategies to which they contributed could be identified more clearly.

7.7 Noting the hierarchical structure of the current nine WMO strategies, consideration could be given to re-arranging the sequence of the major programmes to be more aligned to the strategies structure. That would mean that programmes that were primarily referring to service provisions (see strategies 1 and 2) would be positioned first, then those relating to observation and research would be positioned later (see strategies 5 and 6).

7.8 The Council underscored the importance of highlighting the relevant needs of, and actions for, LDCs in the future programme structure.

7.9 Especially noting the implementation of matrix management and the benefits that that provided for greater synergy, the Council believed that consideration should be given to a programme structure that highlighted the relationships and dependencies between programmes that were required to achieve the high-level objectives of the Long-term Plan. That had been demonstrated by the Natural Disaster Prevention and Mitigation Programme and how it was linked to other WMO Programmes. That approach should be used more widely to ensure that all activities that addressed key societal benefits were properly integrated.

7.10 In light of its considerations, the Council requested its Working Group on Long-term Planning to take those into account in developing the draft programme structure for the next financial period.

PREPARATION OF THE 7LTP

7.11 The Council requested its Working Group on Long-term Planning to elaborate further the above programme structure as a basis for the preparation of the draft 7LTP and the Secretary-General's programme and budget proposals for the fifteenth financial period that would be considered by its fifty-eighth session.

7.12 It confirmed that the framework used for the preparation of the 6LTP (vision, desired outcomes as well as strategies and associated goals) remained essentially valid. Nonetheless, it requested its Working Group on Long-term Planning to take into account the Council's deliberation that might necessitate some adjustments in the presentation of the desired outcomes and strategies/associated goals. Those included the importance of information and communication technology, regional centres, resource mobilization, and reference to the World Summit on the Information Society (WSIS).

7.13 In addition, the Council recognized the need to incorporate in the 7LTP the effective contribution of WMO and NMHSs in the attainment of the internationally-agreed development goals, including those contained within the Millennium Declaration, the Johannesburg Plan of Implementation of the World Summit on Sustainable Development (WSSD) as well as related intergovernmental activities that had socio-economic and environmental implications. It requested the Working Group on Long-term Planning to underscore the contribution of WMO and the broader meteorological and hydrological communities, especially the NMHSs, in the quest for sustainable development, especially in bridging the gap in the provision of relevant weather, climate and water-related services.

7.14 Furthermore, recalling the guidance already given by its fifty-sixth session on the preparation of the 7LTP, the Council requested the Working Group on Long-term Planning to emphasize the importance of the social and economic benefits of meteorological and hydrological services, and to incorporate relevant results of selected pertinent studies in the preparation of the 7LTP.

7.15 The Council also reiterated the importance of close linkage between the Plan and the resources needed or that might be available for the realization of its various elements, as well as the incorporation of improved performance indicators to assist in the eventual monitoring and evaluation of the Plan. It recognized that the Long-Term Plans must drive the activities of the WMO and therefore the Programmes must be properly resourced and aligned with the Plan to effect its implementation and achieve the desired outcomes.

7.16 The preparation of the Plan should also take into account related developments, such as those in the United Nations system, that might have a bearing on the Organization.

8. SPECIFIC ISSUES FACING WMO (agenda item 8)

8.1 EVOLVING ROLE OF WMO (agenda item 8.1)

REPORT OF THE EXECUTIVE COUNCIL ACTION GROUP FOR AN ENHANCED WMO

8.1.1 The Executive Council Action Group for an Enhanced WMO was tasked to identify and prioritize opportunities for making WMO more responsive, proactive and relevant through changes in its mode of operation and to identify specific actions required. It met on 24 and 25 January 2005.

8.1.2 The Council agreed with the Group on the need for change taking into account recent developments, including the mandate for change that had already come from Congress.

8.1.3 The Council also agreed that WMO should be a more agile Organization conducive to action, and that key

elements of such an Organization included mechanisms which:

- (a) Better organized and tracked performance of WMO around cross-cutting issues;
- (b) Addressed how WMO could mobilize its programmes, technical commissions, regional associations, relationships with other organizations to have a coherent approach on key issues and societal needs;
- (c) Defined and clarified the unique role of WMO now and how that role should evolve in the future;
- (d) Regularly reviewed progress towards long-term objectives;
- (e) Adjusted management approach to meet those objectives;
- (f) Ensured early implementation of changes agreed.

8.1.4 The Council further concurred with the Group on the following prerequisites for effective change:

- (a) The WMO President and Vice-Presidents must embrace and lead the necessary changes in the Executive Council and the Organization as a whole;
- (b) The Secretary-General must support, nurture and be actively engaged in the changes through establishment of a culture of change in the Secretariat;
- (c) All Executive Council members and participants must recognize that WMO needed to operate differently and they committed themselves to acting differently;
- (d) All WMO Secretariat staff should have explained to them the code of business conduct and guidelines so that they fully understood the aims and values of the Organization and would behave in a supportive manner to those values.

8.1.5 The Council noted that the Group focused on actions that would enhance the work of the Executive Council, particularly in connection with the organization of its sessions. It underscored the need for improved governance and improved productivity. In that regard, it would be desirable to ascertain also how Executive Council members' strategic needs could be best met and how they could be assisted in carrying out their responsibilities in the most effective and efficient manner, for instance in terms of appropriate means of documentation support. That was particularly important in the Council's preparation for Congress.

8.1.6 Furthermore, the Council stressed the following:

- (a) Improved intersessional role of the Executive Council, including active Executive Council involvement and consultation between sessions;
- (b) Review numbers, composition, purpose and mode of operation of Executive Council subsidiary bodies;
- (c) Further integration within WMO and build/strengthen strategic alliance with United Nations bodies, in particular for cross-cutting issues;
- (d) Enhanced communication strategy.

8.1.7 Moreover, the Council believed that to clarify further and enhance WMO governance, there was a need to review more closely the functioning of the Council itself, as well as related bodies like the Bureau and the Financial Advisory Committee, and to have specific recommendations by its fifty-eighth session that could be then proposed to Fifteenth Congress.

8.1.8 The Council considered a discussion paper provided by the Group on enhancing the role of WMO to

provide advice to decision makers and the public. In that connection, the Council endorsed that role of WMO. It requested the Executive Council Working Group on Long-term Planning to ensure that the above was reflected in the desired outcomes and strategies of the 7LTP. It also requested the presidents of technical commissions to ensure that the provision of weather, climate and water advice to decision makers and the public, and the education of decision makers and the public in weather, water and climate information formed an integral part of the scientific and technical programmes of WMO.

8.1.9 The Council requested the Group to continue with its work along the line given in its terms of reference. In particular, the Council requested the Group to progress the work to ensure that specific proposals were available for consideration of its fifty-eighth session.

8.1.10 The Council requested the Secretary-General to take appropriate action in connection with the above considerations.

8.2 ROLE AND OPERATION OF NMHSs (agenda item 8.2)

MAJOR ISSUES FACING NMHSs

8.2.1 The Executive Council agreed with its Advisory Group on the Role and Operation of NMHSs on the need to address the following five major issues:

- (a) Leadership role, contributions and visibility of NMHSs and WMO;
- (b) Partnership and cooperation;
- (c) Economic and social value of NMHSs;
- (d) Capacity-building and modernization;
- (e) Resource mobilization.

LEADERSHIP ROLE, CONTRIBUTIONS AND VISIBILITY OF NMHSs AND WMO

8.2.2 The Council concurred with the Group on the need to move towards more proactive, responsive and relevant NMHSs in relation to issues of national and international concern. It also agreed that NMHSs must pay attention to multilateral issues and to the topics of relevance to societal concerns such as those highlighted in the Millennium Declaration and the WSSD, the Mauritius Declaration and Mauritius Strategy (for SIDS) as well as the Hyogo Declaration and Hyogo Framework for Action 2005-2015. Those issues and topics were relevant to the question of leadership of NMHSs and WMO at the national, regional and international levels, and to the appreciation of that leadership. In that regard, the Council underscored that appropriate communication and outreach were important.

8.2.3 The Council emphasized that while maintaining leadership in related areas, partnership with other players on weather, climate and water issues, should also be encouraged. The importance of interaction with governments, including through their Permanent Missions in Geneva, was also stressed by the Council.

8.2.4 The Council encouraged sharing and promoting relevant best practices among NMHSs so that various Services could learn considerably about what their counterparts in other countries were doing, on the basis of which they could consider improving on their activities.

8.2.5 The Council felt that the contribution and visibility of NMHSs would be enhanced if NMHSs paid more attention to providing greater information on high-impact and severe weather, as well as on climate extremes, to the public, decision makers and special users.

PARTNERSHIP AND COOPERATION

8.2.6 The Council encouraged NMHSs to adopt a more positive approach in dealing with other institutions, including other governmental departments in the country, as well as other NMHSs at the regional level, for instance, through pertinent regional groupings. Furthermore, NMHSs should give particular attention so that the solid and reliable implementation of the core business of NMHSs, such as daily weather forecasts and warnings, served as an important base in furthering the recognition of NMHSs.

8.2.7 The Council also emphasized the importance of partnership with respect to issues such as resource mobilization, visibility and delivery of services as a whole. In that connection, it encouraged NMHSs to relate better to non-governmental organizations and the private sector, which included equipment manufacturers, suppliers, the media, meteorological services providers and end users.

ECONOMIC AND SOCIAL VALUE OF NMHSs

8.2.8 The Council underscored the importance of economic valuation studies and encouraged undertaking those for a better appreciation of NMHSs, such as through pilot projects at the national level, sharing pertinent experiences and results, interaction through relevant regional forums, and the organization of an international high-level conference on the role and socio-economic benefits of meteorological and hydrological services.

8.2.9 The Council agreed that economic benefit studies and assessments could serve a benchmarking purpose in connection with future enhancement of services, in the context of the overall management and legal status of NMHSs and demonstrating their contributions to society and its economy. WMO and NMHSs should work with recognized specialists and international institutions like the World Bank and the Organization for Economic Cooperation and Development. That would render more credible studies undertaken and those could lead to further WMO guidance material.

8.2.10 The Council considered that the social and economic studies should highlight the value of public weather services provided, as those were the primary concern of NMHSs and which governments must undertake to support. That would also help to address concerns on the possible adverse use of economic benefit studies of specialized value-added services leading to NMHSs being driven excessively towards external sources for funding.

CAPACITY-BUILDING AND MODERNIZATION

8.2.11 The Council agreed that capacity-building should assist NMHSs to respond to needs which stemmed from global, regional and national issues. Capacity-building should also take into account the issue of modernization. Furthermore, the Council expressed the need to examine how best to assist developing countries, especially LDCs, in breaking the cycle of inadequate funding, low visibility and limited

services. The use of ICT was of particular importance, as it would be necessary to take advantage of modernization in communications for the benefit of NMHSs.

8.2.12 The Council stressed that capacity-building was an essential issue to consider if NMHSs were to make adequate contributions to sustainable development and if such contributions and the NMHSs themselves were to be sustainable.

RESOURCE MOBILIZATION

8.2.13 The Council agreed on the following:

- (a) In seeking resources from funding organizations, it was necessary to look at their goals and programmes. There was a need for a strategy on how NMHSs and WMO could work within the framework and priorities of those funding organizations. The relationship between strategy and practice should be constantly kept in view;
- (b) The WMO Secretariat should work on putting together information on the competence, capability and contribution of NMHSs, including best practices. That succinct document, as well as a portfolio of pipeline projects, could be useful when there was a project opportunity;
- (c) Special effort should be made to provide compelling demonstration to multilateral forums that WMO and NMHSs contributed to various issues relating to climate variability and climate change, natural disasters and water resources, among others;
- (d) Recent developments such as the Asian tsunami disaster, the World Conference on Disaster Reduction (Kobe, Hyogo, Japan, 12-22 January 2005), the International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States (Port-Louis, Mauritius, 10-14 January 2005), and High-level plenary meeting of the General Assembly to review progress in fulfilment of commitments contained in the UN Millennium Declaration should be seen as opportunities for resource mobilization;
- (e) Resource mobilization needed to build on an appropriate communications and advocacy strategy for WMO and NMHSs.

QUESTIONNAIRE ON THE ROLE AND OPERATION OF NMSs

8.2.14 The Council agreed that a revised questionnaire should be prepared as a tool to assist WMO in undertaking its work on the role and operation of NMSs. It should use a selected set of elements from the last questionnaire to enable tracking trends and developments in selected areas. It should also contain new and more specific elements relating to current conditions, as well as those that had an indication of possible future considerations, such as expectation and likely developments.

8.2.15 The Council also suggested the development of an appropriate questionnaire for users that could be circulated to them by the NMSs, with respect to how useful they felt their NMSs had been.

EXECUTIVE COUNCIL STATEMENT ON THE ROLE AND OPERATION OF NMHSs

8.2.16 The better understanding of NMSs' responsibility was seen as important in relation to the desired increased

NMSs recognition. In that framework, it was necessary that NMSs demonstrate to the public and policy makers what they were doing and how they responded to the relevant needs of society. The Council agreed that there was a need for a new Executive Council statement that would reflect the changes that had taken place over the years, such as those relating to GEOSS and natural disasters.

8.2.17 In light of the overall discussion, the Council agreed that two outward-looking statements would be prepared:

- (a) A succinct, forceful and well-targeted statement addressed to decision makers;
- (b) A more extended statement for Directors and other senior officials of NMSs for their guidance.

8.2.18 The first document should relate to the international setting which were of interest to decision makers. It should urge support for NMHSs from the decision makers, by identifying what they did and how those contributed in meeting societal needs and to national strategic planning. The Council considered a draft of that document prepared by the Advisory Group. After consideration, it adopted the statement given in **Annex VII** to this report.

8.2.19 Concerning the second document for NMSs Directors and other senior officials, the Council provided its guidance for progressing the work on that document. Those included a functional approach to NMSs with emphasis on the services provided by them and how those met societal needs. The preparation of that document should also take into account further information that might be available, including those resulting from the next questionnaire on the role and operation of NMSs.

8.2.20 In that connection, the Council highlighted the importance of a communication strategy to help facilitate the favourable consideration of those statements and other relevant WMO position papers by decision makers.

INTERNATIONAL CONFERENCE ON THE ECONOMIC AND SOCIAL BENEFITS OF METEOROLOGICAL AND HYDROLOGICAL SERVICES

8.2.21 The socio-economic benefit studies presented at the international Conference should help to demonstrate NMHSs' contribution to the realization of national development goals. Hence, resources attributed to NMHSs could and should be seen as investments rather than expenditures.

8.2.22 The Conference should be seen as resulting from and synthesizing studies, experience and best practices at the national level, which were also shared at regional forums, including sessions of regional associations and regional technical conferences. Special sessions in the Conference could focus on GEOSS and natural disasters.

8.2.23 The Conference's scope and objectives should be such as to promote the better appreciation of the relevant and social and economic benefits to the wide range of pertinent stakeholders. The participation of such stakeholders, including decision makers, user groups, development planners, economists and social scientists, should be strongly encouraged. Moreover, special efforts should be extended to facilitate the participation of some eminent personalities that would help to give further credence to the Conference and draw special attention to it.

8.2.24 The Council agreed on the holding of the International Conference in early 2007. It requested the Secretary-General to take the appropriate actions, using existing resources as well as extrabudgetary resources. In that connection, WMO Members and technical commissions were requested to enhance their assessment of social and economic benefits of meteorological and hydrological services.

ROLE AND OPERATION OF NATIONAL HYDROLOGICAL SERVICES

8.2.25 The Council also noted that, with the concurrence of the Executive Council Advisory Group on the Role and Operation of NMHSs, the Guidelines on the Role, Operation and Management of NHSs were in the process of being published. It requested the president of CHy to continue the work in that area, in close cooperation with the chairperson of the Advisory Group.

8.2.26 The Council recognized the need to address the more general question of enhancing the role of National Hydrological Services in the framework of WMO that had been raised in the course of the work of the Advisory Group. The Council, noting the diverse but close relationship between NMSs and National Hydrological Services, requested the Advisory Group to consider, as part of its terms of reference, how that diverse range of relationships could best be represented in the framework of WMO.

FURTHER WORK

8.2.27 In the light of the above, the Council requested the Advisory Group to pursue further the tasks assigned to it as given in its terms of reference. In particular, the Council requested the Advisory Group to take into account the importance of sensitizing governments to the crucial role and operation of NMHSs as well as relevant changes.

8.3 INTERNATIONAL EXCHANGE OF DATA AND PRODUCTS (agenda item 8.3)

8.3.1 The Executive Council noted the concerns expressed relating to the availability of certain meteorological and related data and information on the Internet.

8.3.2 The Council recalled that ships participating in the Voluntary Observing Ships (VOS) scheme and providing data (FM-13 SHIP) did so on the understanding that their data were only exchanged between NMSs for real-time meteorological forecasting activities and for climatological research. The Council noted the concern expressed by the JCOMM Ship Observations Team, that there had been several recent occasions where SHIP data had been displayed on public Web sites and that the identification of ships' call signs and positions on such Web sites had exposed them to security risks. It expressed its concern that the proliferation of Web sites displaying FM-13 SHIP data could exacerbate the situation of ships being withdrawn from the VOS programme. At the same time, the Council recognized that, with the International Ship and Port Security Code calling for heightened international security measures, and an increase in the frequency of pirate attacks in some areas, NMSs must act to safeguard the identities of ships which participated in the VOS programme or faced the consequences of losing ships from the programme.

8.3.3 In connection with the above concern on ship observations, the Council recognized the seriousness of that issue. It urged that every possible effort should be exerted to avoid any diminution of ship observations. On that particular issue, the possibility of "camouflaging" the ships' call signs and positions could be explored. The Council requested its Advisory Group on the International Exchange of Data and Products, in close consultation with JCOMM, to address that matter and to report to the next session of the Council, taking into account relevant considerations at the upcoming session of JCOMM in September 2005.

8.3.4 The Council was informed that the Guidelines on the Use of the Public Internet for Aeronautical Applications (ICAO Doc. 9855) had been prepared. It noted that that document made a distinction between time-critical meteorological information crucial to airline operations that should be distributed via the ICAO Aeronautical Fixed Service and not via the Internet (e.g. SIGMET information), and those that were not time-critical that could be exchanged through the Internet (e.g. Terminal Aerodrome Forecast (TAF)). The Council agreed on the importance of giving attention to that matter and also noted that relevant guidelines on the provision of aviation services continued to be provided by ICAO.

8.3.5 The Council noted developments concerning the proposed European Commission directive entitled Infrastructure for Spatial Information in Europe (INSPIRE) which had possible implications to the international exchange of meteorological and related data and products for NMSs in Europe and possibly worldwide. It expressed appreciation for the efforts of the European National Meteorological Services (EUMET), EUMETNET and the Secretary-General vis-à-vis the European Commission to draw attention to the concerns of WMO and the European NMSs.

8.3.6 The Council therefore called for the possible European and worldwide implications of that initiative to be carefully studied and properly addressed. In that connection, it requested its Advisory Group to follow the relevant developments and to liaise with CBS, as appropriate.

8.3.7 The Council noted that it had not been necessary for the Advisory Group to meet. Nonetheless, there had been consultations among the members of the Advisory Group to consider some evolving concerns. The Council agreed that the Advisory Group should continue to serve as a mechanism to address additional concerns that might arise and to provide appropriate recommendations. It reiterated that it was important to give close and continuing attention to the issue of the international exchange of meteorological, hydrological and related data and products, and that that was a matter of highest importance to WMO, its Members and their NMHSs.

8.3.8 In connection with all of the above issues, it requested its Advisory Group to keep close watch on those issues and to make the necessary recommendations to the Council. It also requested the Secretary-General to keep Members informed of developments and take appropriate action consistent with relevant WMO's policies and guidelines, particularly to ensure that the letter and spirit of Resolution 40 (Cg-XII) — WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities, were observed.

8.4 WMO QUALITY MANAGEMENT (agenda item 8.4)

8.4.1 The Executive Council recalled Resolutions 27 (Cg-XIV) — Quality management, and 8 (EC-LVI) — Intercommission Task Team on Quality Management Framework, concerning the development of the QMF for NMSs.

8.4.2 The Council received with appreciation the report of Mr Chow Kok Kee (Malaysia), Executive Council Focal Point on QMF and chairperson of the Intercommission Task Team on QMF, which mainly covered the outcomes of the WMO Workshop on QMF (Kuala Lumpur, Malaysia, October 2004), and pertinent discussions of the 2005 Meeting of the Presidents of Technical Commissions (Geneva, January 2005, see also agenda item 2.5). The Council was informed on the results of the second survey (April 2005) carried out by the Secretary-General on the status and plans related to quality management systems (QMSs) within NMSs. The survey revealed that quality management was of growing relevance to Members and that the number of Members' requests for technical guidance and advice had increased since 2004. The survey also showed that the overall costs for achieving ISO 9001 certification had decreased, mainly resulting from a wider availability of know-how and experience in that area, and that the pure certification (audit) costs were reported as being much lower than what was expected earlier.

8.4.3 A large number of NMSs had been expressing the need for technical guidance from WMO in developing and implementing national QMSs. In that connection, the Council agreed with the decisions made by XIII-RA II and XIV-RA IV as regarded the implementation of capacity-building activities to help, in particular developing NMSs, individually or as part of regional groups, in the implementation of QMS. Those needs should be met through training events, such as seminars, workshops or conferences, including training events in RMTCs, which were planned in the Regions, or under relevant scientific/technical Programmes of WMO, and where appropriate, expert visits. The Council requested the Secretary-General to do his utmost to facilitate such training. The Council also felt that efforts should be further pursued, within the resources available, to develop a QMS demonstration project in an NMS of a developing country.

8.4.4 The Council noted the concerns expressed by some developing countries which saw the implementation of quality management systems as unavoidable in order to remain competitive and comply with the increasing user requests, but which caused them difficulties as they had barely enough resources to support the activities of their NMSs.

8.4.5 Because the second survey revealed that many Members needed more basic information on the WMO QMF, the Council requested the Secretary-General to produce an explanatory circular on that issue, set up a Web-page and distribute a list of ISO 9001 certified NMSs willing to receive visitors for training. The Council requested the Secretariat to endeavour to have information on QMF available in all WMO languages.

8.4.6 Furthermore, as regarded the further steps in the development of the WMO QMF, the Council:

- (a) Requested the Secretary-General to continue urgently the development of WMO guidance material on the QMF, taking into account the experience of a number of NMHSs in implementing their own QMS and those

based on the ISO 9001 standard, including examples of process descriptions and templates;

- (b) Endorsed the conclusion of the 2005 Meeting of the Presidents of Technical Commissions (Geneva, January 2005) for the technical commissions concerned to focus on a review of WMO Technical Regulations relevant to observation generation, with a view to rectifying deficiencies, duplications, inconsistencies and errors; recognized that, with respect to the WWW, that would also involve the annexes of Technical Regulations that corresponded to the Regions in order to achieve consistency with the global sections to be reviewed by CBS; that should make relevant WMO Technical Regulations viable reference documents for use within national QMS;
- (c) Agreed that, in the future, QMF aspects should become an integral part of the work of the technical commissions;
- (d) Endorsed the suggestion of the 2005 Meeting of the Presidents of Technical Commissions regarding the consideration of quality control aspects related to forecasting and warning products and services, that those be, as a first step, addressed in connection with the standing task of CBS, to develop standards or recommended practices on weather forecasting and the use of forecasting systems, and be based on the findings expected to be developed under that task;
- (e) Requested the Intercommission Task Team on QMF to coordinate the development of a document that would describe work processes typical for observation generation under the various WMO Programmes concerned, making reference to relevant WMO regulations and guides; that document should serve as a model, or template, for use in process description within national QMS and introduce, at the same time, a quality control scheme related to the quality of observations.

8.4.7 Furthermore, the Council realized that the implementation of the above-mentioned activities would depend on the availability of financial resources, and agreed to address that issue under agenda item 5.

8.4.8 The Council felt that the use of the ISO 9001 standard and the associated certification were critical for many NMSs to achieve the desired international visibility and credibility related to commercial competitiveness. As far as a WMO-own certification scheme was concerned, the Council noted with interest the conclusions from experts that such a scheme would most likely be more expensive than ISO 9001 certification because of costs for WMO permanent staff, interpretation and travel and the requirements for neutrality and geographic balance within a WMO-own certification team. It also noted that it was, at present, not clear whether NMSs could meet the ICAO recommendation on QMS contained in the ICAO Annexes with any WMO-own certification scheme. In view of the urgency for NMSs to implement QMSs, some Council members felt that the time necessary for clarifying that question and for developing and setting-up a WMO-own certification scheme, might render such an approach not feasible. At the same time, other Council members felt that the ISO standards had limits and that WMO's technical standards, if used together with ISO standards for the managerial processes, could form the basis of an internationally-recognized certification for NMSs.

8.4.9 The Council considered it necessary to establish closer cooperation with ISO with a view to develop international standards based on WMO standards, regulations and/or recommended practices. In that connection, the Council requested the Secretary-General to take appropriate actions to that end.

8.4.10 Some Council members pointed to the potential benefit for the Secretariat which would be gained by applying a quality management system to its activities. The Council noted in that context that most of the financial and administrative procedures that were presently being implemented in the Secretariat were based on quality management principles.

8.4.11 The Council decided that it would, at its next session, prepare recommendations in preparation for Fifteenth Congress, on encouraging Members to pursue QMSs including, but not limited to, ISO 9001, as well as on the feasibility and the adequacy of a WMO-own certification scheme.

9. INFORMATION AND PUBLIC AFFAIRS PROGRAMME (agenda item 9)

9.1 The Executive Council decided that the theme for World Meteorological Day in 2007 would be Polar meteorology: understanding global impacts.

9.2 With the objective of enhancing the implementation of the WMO Global Communication Strategy, the Council invited the Secretary-General to pursue his efforts in promoting interaction between the WMO Communications and Public Affairs (CPA) Office, the Information and Public Affairs (IPA) Focal Points, the United Nations Offices in the field and other partners, including the private sector, for enhanced visibility of WMO and NMHSs. It called on NMHSs to inform the CPA Office of changes in name and/or contact details of their IPA Focal Point.

9.3 The Council requested the Secretary-General:

- (a) To arrange for the timely transmission of WMO information material to NMHSs, in order to allow for timely outreach to the public;
- (b) To make WMO public information material for the celebration of World Meteorological Day available to NMHSs by 31 January;
- (c) To ensure that the IPA Programme continued to take advantage of available technologies for the timely transmission and easy access to media and public information materials issued by WMO and NMHSs;
- (d) To enhance his efforts in keeping the media fully briefed on major issues involving WMO and the NMHSs;
- (e) To undertake further training activities for NMHSs aimed at improving their presentation and communication skills; and
- (f) To arrange for the participation of the Secretariat in relevant international exhibitions in order to promote the visibility of WMO and NMHSs.

9.4 The Council requested the Members:

- (a) To make use of the "News from Member" segment on the WMO Web site aimed at increasing international attention to NMHSs' activities;
- (b) To continue to develop or establish, as necessary, their own Web sites;
- (c) To translate and disseminate the cartoon entitled "We care for our climate" in local languages, if and when possible; and

- (d) To provide IPA Focal Points with the necessary support to discharge their responsibilities effectively.

10. COOPERATION WITH THE UNITED NATIONS AND OTHER INTERNATIONAL ORGANIZATIONS

(agenda item 10)

10.1 UNITED NATIONS (agenda item 10.1)

10.1.1 The Executive Council requested the Secretary-General to strengthen further the cooperation between the Organization and the United Nations through active participation and involvement in United Nations major events such as the sessions of the Chief Executives Boards, the 2005 World Summit (New York, 14-16 September 2005) and through demonstration of the role of the Organization and NMHSs on sustainable development.

RESOLUTIONS ADDRESSED TO SPECIALIZED AGENCIES OF THE UNITED NATIONS

10.1.2 The Council took note of the following resolutions addressed to the specialized agencies, including WMO, by the fifty-ninth session of the United Nations General Assembly:

1A, 1B, 2, 3, 4, 5, 6, 8, 9, 21, 22, 24, 37, 42, 44, 47, 56, 114, 116, 117, 126A, 126B, 138, 139, 140, 141, 145, 149, 164, 168, 186, 209, 211, 212, 213, 220, 222, 225, 227, 228, 229, 231, 232, 233, 234, 235, 236, 237, 244, 245, 247, 248, 267.

10.1.3 The Council encouraged the Secretary-General to continue to provide the information on major outcomes of the sessions of the United Nations General Assembly, of direct relevance to WMO, that might assist the NMHSs in promoting awareness of developments at the global and regional levels that had implications for the Services.

10.1.4 In order to ensure greater recognition for the Organization, the Council emphasized the importance of implementing United Nations resolutions, in particular those related to the mandate of the Organization. The Council urged the Secretary-General to take appropriate measures, in the context of the new initiatives related to liaison with the United Nations system and other international and regional organizations, to strengthen the outreach of the Organization through active involvement and participation in activities in the United Nations system in consultation and with the support of Member's representatives at the events.

IMPLEMENTATION OF THE INTERNATIONALLY-AGREED DEVELOPMENT GOALS

10.1.5 The Council emphasized that the internationally-agreed development goals, including those within the Millennium Declaration were closely related to the mandate of the Organization. WMO actively participated and was involved in the implementation of the internationally-agreed development goals with other United Nations organizations, in particular with goals 1 and 7, namely "Eradicate extreme poverty and hunger" and "Ensure environmental sustainability". In that context, the Council expressed support for WMO's initiative to work towards reducing, by 50 per cent over the decade 2010-2019, the associated 10-year average fatality of 1995-2004 for natural disasters of meteorological, hydrological and climate origin.

10.1.6 The 2005 World Summit would review the progress and implementation of the internationally-agreed development goals. In that context, the Council urged Members to participate in, and contribute to, the implementation of the goals at the national and regional levels. The Council invited the Secretary-General to pursue with the implementation of the goals and report to the next session of the Executive Council.

FOLLOW-UP TO THE INTERNATIONAL MEETING TO REVIEW THE IMPLEMENTATION OF THE PROGRAMME OF ACTION FOR THE SUSTAINABLE DEVELOPMENT OF SMALL ISLAND DEVELOPING STATES

10.1.7 The Council invited the Members to participate actively in relevant follow-up events on SIDS, in particular the implementation of the Mauritius Strategy so as to enhance the contribution of WMO as well as NMHSs to the sustainable development of SIDS.

10.1.8 The Council welcomed the proposal of the Secretary-General to develop an Action Plan aimed at assisting the NMHSs in the implementation of the Mauritius Strategy. That would include the development of relevant partnerships with the United Nations system organizations and with relevant regional and international organizations in areas of concern to NMHSs. Members were invited to assist in the development and implementation of the Action Plan so that tangible results would be achieved in support of the sustainable development objectives of SIDS. The Council requested the Secretary-General to report on the implementation of the Mauritius Strategy at the next session.

REPORTS OF THE JOINT INSPECTION UNIT (JIU)

10.1.9 The Council requested the Secretary-General to take measures for the implementation of recommendations of JIU reports, which were related to the activities of the Organization, in accordance with the “WMO procedures of follow-up on JIU reports”. The actions taken, if any, were reported under the relevant agenda items. The Council adopted **Resolution 16 (EC LVII)**.

10.2 SPECIALIZED AGENCIES AND OTHER INTERNATIONAL ORGANIZATIONS (agenda item 10.2)

10.2.1 The Executive Council requested the Secretary-General to develop relevant projects and enter into suitable arrangements with specialized agencies, intergovernmental organizations and relevant non-governmental organizations in the implementation of the Mauritius Strategy, the Hyogo Declaration and the internationally-agreed development goals, including those within the Millennium Declaration and other relevant regional and international strategies and Plans of Action.

10.2.2 The Council also requested the Secretary-General to enter into Memorandums of Understanding such as those with the Netherlands Organization for Applied Scientific Research, the International Research Institute for Climate Prediction and the Economic Cooperation Organization, which promoted the development of NMHSs as well as their visibility and that of WMO.

10.2.3 Concerning WMO’s cooperation with other international organizations, especially those with formal Agreements,

Working Arrangements and Consultative Status, approved by Congress and the Executive Council, the Council requested the Secretary-General to report to its fifty-eighth session on the further review of the progress of implementation of the cooperation with other organizations and measures taken to strengthen and enhance further their implementation when they were beneficial to NMHSs and WMO.

WMO’S ROLE IN SEISMOLOGY AND RELATED ACTIVITIES

10.2.4 Congress had requested the Council to address further the possible facilitating role of WMO regarding international coordination in the field of seismology, taking into account additional information and analysis.

10.2.5 The Council noted that the second World Conference on Disaster Reduction held in Kobe, Hyogo, Japan on 18-22 January 2005 reaffirmed that an integrated, multi-hazard approach to disaster risk reduction should be factored into policies, planning and programming. That consideration had been written into the Hyogo Framework of Action 2005-2015. The concept of an integrated global multi-hazard early warning framework for disaster risk reduction had been endorsed by many countries, including those attending the First and Second International Coordination Meetings organized by UNESCO for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean, held respectively in Paris and Grand Baie, Mauritius.

10.2.6 The Council recalled that the GEOSS 10-year Implementation Plan addressed nine societal benefit areas including reducing loss of life and property from natural and human-induced disasters. It also noted that near 90 per cent of natural disasters were related to weather, climate and water extremes. Thus, the Council was optimistic that data and information resulting from GEOSS’s implementation would provide the necessary input to informed decision making at the national level related to the multitude of natural hazards impacting WMO Members. The Council also recalled the GEO Communiqué issued in Brussels on 16 February 2005, supporting a multi-hazard approach to early warning systems.

10.2.7 The Council recognized that an integrated multi-hazard approach to hazard forecasting, early warning, preparedness and response was the method of choice to provide the best return on investment with regard to lives saved and infrastructure and property protected from disasters.

10.2.8 The Council further recognized that the main advantage of an integrated global multi-hazard early warning framework was the multipurpose use of observational and telecommunication systems, which exploited routine operational facilities and services to provide accurate and timely information to decision makers, and ultimately to the general public. Regular activation of multi-hazard warning systems ensured sustainability and effectiveness for response to rare events such as tsunamis. At the national level, as countries developed their national hazard alert and response mechanisms, adoption of early warning systems within an integrated multi-hazard warning framework would save more lives and be more cost-effective. Their more frequent use would help the public by repeatedly exercising their exposure to, and understanding of, the contents of warnings and specific actions they should take on each type of hazard. The multi-hazard approach facilitated an improved cooperation and coordination of

national agencies responsible for disaster prevention. In particular, the joint coordination of warnings issued by NMHSs was the model for integrated multi-hazard early warning systems with active linkages to national authorities responsible for disaster preparedness and prevention. Through the momentum that had been generated at the political level by the Asian tsunami disaster and the second World Conference on Disaster Reduction, it was critical to promote the proactive development of multi-hazard early warning capabilities, by improving and building on the current capacities for all hazards, and by making them available to all countries, particularly those with least resources.

10.2.9 The Council noted that there was heightened expectation that those agencies responsible for tsunami warning distribution, including NMHSs, would perform to a higher standard than occurred for the tragic Indian Ocean tsunami disaster on 26 December 2004. To achieve that, the Council urged all Members to develop close linkages to all those national agencies, including the disaster management agencies that could contribute to the improvement of warning distribution and community response.

10.2.10 The Council noted that weather-, climate- and water-related hazards, being within the mandate of WMO, accounted for about 90 per cent of the total loss of life from natural disasters, and that earthquake-related hazards account for a further 8 per cent.

10.2.11 The Council further noted that nearly 27 per cent of the NMHSs around the world had some kind of seismology- and/or tsunami-related mandate. Although that mandate was not directly related to WMO's work, NMHSs with that mandate would be in a better position to develop an integrated multi-hazard warning framework.

10.2.12 The Council noted with satisfaction the contribution of WMO's GTS in the exchange of seismological observations, tsunami warnings, and sea-level information through the years, as well as the plan for upgrading the GTS and other actions that WMO had taken in collaboration with the IOC of UNESCO in the development of the Indian Ocean Tsunami Early Warning System following the Indian Ocean tsunami disaster on 26 December 2004. The Council noted the need to upgrade the GTS in all regions, where upgrades would be needed, to facilitate the exchange of early-warning information in a multi-hazard framework, and specifying as regarded to tsunami-affected regions, so that NMHSs with warning distribution responsibilities could properly fulfil their roles. The Council noted that the latter actions would also benefit the WMO community in terms of strengthening of meteorological operational systems. The Council stressed that WMO, through its GTS upgrades, should address with priority those seismic and tsunami-related data and information that could be handled within the current capabilities of the GTS structure and that upgrading of the GTS in that regard also contributed to the enhancement of the telecommunication system and international collaboration as a whole. The Council further noted that within the context of WIS, WMO should consider the possibility for real-time exchange of seismic data for operational early warning purposes within the multi-hazard framework. The Council acknowledged that the more flexible design of WIS would enable Members to facilitate direct access to information by other designated national agencies, thus, that would reduce

the performance pressure for dissemination of such information by the NMHSs within the national boundaries.

10.2.13 On the other hand, the Council noted that there was currently no integrated global multi-hazard early warning framework at the intergovernmental level, despite the fact that various international agencies or non-governmental organizations already had some functions or roles in various disaster reduction activities including seismology and related areas.

10.2.14 Since effective tsunami warning services depended on the free and unrestricted real-time exchange of sea level and seismic data, the Council encouraged Members to consider to expand their application of Resolution 40 (Cg-XII) — WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities, to those types of data.

10.2.15 The Council recognized that WMO and NMHSs of its Members had been well accepted by the international community to have the widest operational experience and unique expertise and facilities in the prevention and mitigation of weather-, climate- and water-related hazards. WMO and its Members had the ability and responsibility to make due contributions to the development of an integrated global multi-hazard early warning framework. In return, it was also a unique opportunity for NMHSs to benefit from the continued improvement and sustainability over time.

10.2.16 The Council agreed that WMO jointly with other international organizations should explore possible mechanisms for an integrated global multi-hazard early warning framework at the intergovernmental level. In that respect, the Council recommended that JCOMM be one of the mechanisms between WMO and the IOC of UNESCO to address relevant practical and operational issues for a multi-hazard framework for the establishment of tsunami early warning systems, in coordination with the cross-cutting framework of WMO's DPM including the TCP, the Hydrology and Water Resources Programme (HWRP), and the Marine Meteorology and Oceanography Programme. The Council acknowledged that the IOC of UNESCO Assembly XXIII also had further instructed JCOMM to support the implementation of the IOC Integrated Strategy in developing operational capabilities for the management and sustainability of the open and coastal oceans. The Council requested JCOMM, in cooperation with CBS, to prepare a framework document for its fifty-eighth session on the contribution of WMO to the global tsunami warning system within a multi-hazard framework.

10.2.17 The Council recognized the leading role of the IOC of UNESCO in coordinating the Tsunami Early Warning System in the Indian Ocean and other regions at risk. In that regard, the Council further recognized the role of the Intergovernmental Coordination Groups established by the IOC of UNESCO for the Pacific Ocean in 1968 and for the Indian Ocean Tsunami Early Warning System in 2005. The Council acknowledged that coordination of all technical matters related to seismic and oceanographic observations, technical tsunami-related analysis and development of tsunami early warnings was under the mandate of the IOC of UNESCO. The Council urged those NMHSs with a mandate for development of tsunami early warnings to work directly with the IOC of UNESCO for the development of their tech-

nical capacity. However, the Council also recognized that in addition to contributing to the exchange of seismic and tsunami-related information through the WMO GTS and WIS, WMO should assist through its relevant technical expertise to the establishment of tsunami early warning systems within a global multi-hazard framework, under the cross-cutting framework of DPM, such as assisting the NMHSs in enhancing their warning dissemination capabilities and their education and public outreach programmes.

10.2.18 The Council further agreed that WMO should contribute to disaster prevention and mitigation activities within a multi-hazard global framework by offering its infrastructure as well as its wide operational experience and unique expertise and facilities in multi-hazard early warning systems to the international community. The Council adopted **Resolution 17 (EC-LVII)**.

10.3 INTERNATIONAL POLAR YEAR 2007-2008 (agenda item 10.3)

10.3.1 The Executive Council noted with satisfaction that WMO and ICSU made substantial progress in the IPY planning and preparation. That included:

- (a) Establishment of the IPY Joint Committee (JC) responsible for the scientific planning, coordination, guidance and oversight of the IPY;
- (b) Establishment of the IPY International Programme Office (IPO) to provide secretariat support to the JC activities;
- (c) Establishment of the Open Consultative Forum to provide a consultative platform for IPY planning and preparation and for the exchange of information with the JC on IPY development;
- (d) Publication of the Framework for the International Polar Year 2007-2008 developed by the ICSU Planning Group with a substantial contribution from WMO;
- (e) Evaluation of about 900 Expressions of Intent received by the JC as a response to the call issued by WMO and ICSU and identification of possible Lead Projects around which Expressions of Intent could be clustered to form IPY core projects.

10.3.2 The Council endorsed the fundamental concept of the IPY: an intensive burst of internationally-coordinated, interdisciplinary, scientific research and observations focused on the Earth's polar regions. It agreed with the procedure proposed by the JC for the preparation of full IPY proposals and with the intention to establish Project Steering Committees responsible for the detailed planning, execution and reporting of the science activities of IPY core projects. The Council requested the WMO technical commissions to assist in the establishment of the Project Steering Committees and in providing technical advice in the management of the projects.

10.3.3 The Council noted with appreciation the report of Mr Qin Dahe (China), chairperson of the Intercommission Task Group on IPY. The actions proposed in the following paragraphs, were in full agreement with the Intercommission Task Group's proposals. The Council requested the technical commissions to consider the Intercommission Task Group's recommendations related to their areas of responsibility at the forthcoming sessions of their commissions.

10.3.4 The Council requested the Secretary-General to take appropriate measures based on the Memorandum of

Understanding between the European Union and WMO to ensure more active support of the European Union to IPY activities through the European Union Framework Programme 7. In order to facilitate funding of the IPY implementation it recommended that WMO should be well represented at the meetings with international funding agencies on that issue. Noting a lack of coordination at the national level in some countries in the IPY planning, the Council recommended that representatives of the NMHS be included in the composition of the National Committees on IPY and urged Members to take action to that effect.

10.3.5 Recognizing that support of the Arctic Council and the Antarctic Treaty Consultative Meeting would be very beneficial for IPY implementation, in particular in facilitating funding of national and international IPY projects, free access to territories and data exchange, the Council noted that representatives of the Arctic Council and the Antarctic Treaty Consultative Meeting had been invited to participate in the IPY Joint Committee as Observers.

10.3.6 The Council approved the JC proposal to establish JC Subcommittees on Observing Systems, on Data Policy and Management Strategy, and on Education, Outreach and Communication. Regarding the development of an IPY observing component, it recommended that IPY space-based activities should be properly coordinated with appropriate bodies through the WMO Space Programme. Noting that a number of WMO Member countries were developing or planning to develop national and regional AMDAR projects relevant to Polar regions, the Council encouraged them to complete such projects in time to be implemented during the IPY in order to provide a valuable set of upper-air data. Concerning IPY data management, the Council recommended that the requirements related to the exchange of IPY data and information be developed as a high priority and provided to CBS and IPO for planning purposes. It agreed that the WMO Information System should be used for data and information exchange during and following IPY, as appropriate.

10.3.7 Recognizing that the next JC session was planned to be held at WMO Headquarters in November 2005 and that Executive Heads of WMO and ICSU had agreed that funding of the JC sessions, including expenses of participation of JC regular members, should be provided in turn by ICSU and WMO, the Council approved the holding of the JC session in Geneva.

10.3.8 The Council considered the financial support to the IPY planning and implementation process including the activities of the IPY JC and IPY Intercommission Task Group under agenda item 5. Noting that a Trust Fund for the International Polar Year (IPY Fund) was established by WMO for voluntary contributions by the governments of WMO Members, international organizations and other donors, the Council encouraged Members to support those activities through contributions to the IPY Fund.

10.4 UNITED NATIONS INTER-AGENCY COOPERATION ON GLOBAL MARINE ASSESSMENT AND GESAMP (agenda item 10.4)

10.4.1 The Executive Council noted the status of the establishment of UN-Oceans, the development of the regular

process of the global marine assessment (GMA) and restructuring of the Group of Experts on the Scientific Aspects of Marine Environmental Pollution (GESAMP). With respect to the regular process of GMA, the Council endorsed participation of WMO in the UN-Oceans Task Force on the GMA. It requested the Secretary-General to provide a report on further progress on GMA to its next session.

10.4.2 The Council recognized that the work carried out by GESAMP was fruitful and relevant to WMO in past years and that GESAMP was providing valuable support to WMO scientific goals. The Council expressed general support to GESAMP regardless of its involvement in the GMA. Taking into consideration that WMO Members' mandates in the field of marine assessment were limited, the Council agreed on the continuation of current funding of GESAMP activities for a number of experts for assessment topics relevant to WMO, such as the areas related to the atmosphere-ocean interaction, including exchange of pollutants, the effects of global change and other atmospheric-related processes on the marine environment.

10.4.3 Considering the draft Memorandum of Understanding to govern restructured GESAMP proposed by the GESAMP Joint Secretariat, the Council endorsed it, in principle, with the understanding that its final text, subject to further negotiations, should be harmonized with respect to the above commitments of the Organization.

10.5 GROUP ON EARTH OBSERVATIONS AND EARTH OBSERVATION SUMMIT FOLLOW-UP (agenda item 10.5)

10.5.1 The Executive Council noted with pleasure the presentation of Vice-Admiral Lautenbacher, Under-Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator, in his capacity as Global Earth Observation co-chairperson that highlighted his perspective on the status and plans for GEOSS. Council Members were particularly thankful for the information on the potential socio-economic benefits that were expected to result from the implementation of GEOSS. The Executive Council also noted the information on activities related to GEO and its associated GEOSS that had occurred since its fifty-sixth session. It was informed of the procedure to become a GEO Member while noting that GEO membership incurred no mandatory financial commitment. It recalled that at its fifty-sixth session, the Council had been informed of the results from four GEO sessions and two Earth Observation Summits. In agreeing that GEOSS was one of the most important and key initiatives which would enable WMO to address the challenge of the coming decades, the fifty-sixth session of the Executive Council had approved Resolution 9 (EC-LVI) — Global Earth Observation System of Systems, referring to hosting the GEO Secretariat. The Council agreed that GEOSS activities had the potential to contribute greatly to capacity-building efforts throughout WMO Members and especially in developing countries. It also noted that existing and planned WMO systems' capabilities, such as the WIS, would greatly enhance GEOSS as well as facilitate the interoperability with other systems participating in GEOSS.

10.5.2 At GEO-6 and EOS-III, there were three significant events for WMO. First, the agreement by a GEO-6 resolution to assent to a Standing Arrangement between WMO and GEO

for hosting the GEO Secretariat in Geneva. Second, a Communiqué relating to support for tsunami and multi-hazard alert systems which was endorsed at EOS-III. The Council noted that WMO Members had the capacity to contribute greatly to tsunami and multi-hazard alert systems. Third, an EOS-III resolution was adopted endorsing the 10-year GEO Implementation Plan. The Council, as requested in the EOS-III resolution, agreed to endorse the GEOSS Implementation Plan and adopted **Resolution 18 (EC-LVII)** to that effect.

11. GENERAL AND LEGAL MATTERS (agenda item 11)

11.1 FIFTIETH INTERNATIONAL METEOROLOGICAL ORGANIZATION PRIZE (agenda item 11.1)

11.1.1 The Executive Council awarded the fiftieth IMO Prize to Mr John W. Zillman.

11.1.2 Mr A. D. Moura was appointed to the Selection Committee to replace Mr Qamar-uz-Chaudhry. The Committee now comprised of Messrs J.K. Rabadi (chairperson), B. Kassahun, J.R. Lumsden and A.D. Moura.

11.2 CONSTITUTIONAL AND REGULATORY MATTERS (agenda item 11.2)

11.2.1 The Executive Council expressed its appreciation to the chairperson of the Executive Council Task Team to Explore and Assess the Possible Changes to the WMO Convention and agreed that the work of the Task Team should continue with enlarged number of its members, namely from three to six with a view to ensuring representation of Members from other WMO Regions. While recognizing that there was a need to raise the profile of WMO and an interest in updating the WMO Convention, the Council recognized that appropriate caution should be exercised, in particular in relation to the proposal for adoption of protocols to the Convention, as such protocols could involve new financial commitments. The Council further considered the specific objectives for adoption of a new Preamble to the Convention and advised about the need of drafting that part in such a way, which would not give an impression of an attempt to enlarge the mandate of WMO through this exercise. Some Members brought to the attention of the Council the fact that in accordance with their national procedures every amendment to the WMO Convention, even the one adopted under Article 28(c), would have to be presented to their Parliaments for ratification which could, as a result, bring some possible unexpected developments. The proposal of preparing and issuing periodically, every four years, a WMO Declaration stating WMO goals and area of activities which could increase WMO visibility, was considered.

11.2.2 The Council further recommended that the proposals of the Executive Council Task Team be presented to the forthcoming sessions of Regional Associations I, III, V and VI. The Council further requested that:

- (a) The Secretary-General send a letter as soon as possible to the Members informing them about the status of development of work related to the proposed amendments to the WMO Convention and requesting them to provide their comments to the Secretariat not later than 1 November 2005;

- (b) The Task Team review the present draft of Amendments to the Convention, in the light of comments received from Members, preferably by March 2006;
- (c) The recommendations by the Task Team be presented to its fifty-eighth session in 2006;
- (d) Following the recommendations by RAs II and IV on the subject, a careful study of the criteria be applied to the protocol scheme for introduction of new subjects before the Congress decision on that matter;
- (e) The draft resolution to be submitted to Fifteenth Congress by the Executive Council should reflect the outcome of such study and other refinements to the proposals from the Task Team to Explore and Assess the Possible Changes to the WMO Convention;
- (f) The possible proposed amendments to the WMO Convention be distributed to the Members at the latest by November 2006 to meet the six-month time period required under Article 28(a) of the WMO Convention;
- (g) An open-ended drafting group, composed of interested Members, would start working on the wording of possible amendments to the Convention and/or a Declaration, if necessary, meet at the latest in March 2006 with a view of finalizing necessary arrangements for Fifteenth Congress.

11.2.3 In that connection, the Council adopted **Resolution 19 (EC-LVII)**.

11.2.4 The Council noted the request of the late Dr Dobrilovic's family to modify the terms of reference of the Award, by which to omit candidates from African countries and allow only candidates residents in Serbia and Montenegro. Considering the national nature of the award, the Council decided to terminate the corresponding Trust Fund and to return the funds which were still in the Trust Fund to the body/person identified by the family of the late Dr Dobrilovic.

QUESTIONS CONCERNING THE WMO EMBLEM AND FLAG

11.2.5 After considering that no additional costs would be involved in the process of changing the colour of the windrose on its emblem as well as on its flag from white to gold and adding the abbreviation of the name of WMO in all WMO languages at the bottom of the emblem, the Council agreed to submit the proposal formally to Congress and adopted **Resolution 20 (EC LVII)**.

11.3 DESIGNATION OF ACTING MEMBER(S) OF THE EXECUTIVE COUNCIL (agenda item 11.3)

The Executive Council designated Messrs Mourad Shawky Saadallah, Sanjiv Nair, Massimo Capaldo, John Mitchell, Wolfgang Kusch and D. Franciso Cardarso González, as acting members of the Executive Council in replacement of Messrs M.M. Arafa, S.K. Srivastav, R. Sorani, D. Rogers, U. Gärtner and Ms M. Couchoud Gregori, respectively.

11.4 REVIEW OF PANELS AND OTHER BODIES OF THE EXECUTIVE COUNCIL (agenda item 11.4)

11.4.1 The Executive Council considered the merging of the Executive Council Advisory Group on the Role and Operations of NMHSs and the Executive Council Action Group for an Enhanced WMO into a new Working Group on the Evolution of NMHSs and WMO and adopted **Resolution 21 (EC-LVII)**.

11.4.2 The Council reviewed and updated the membership of all its panels and other bodies reporting to it (see **Annex VIII** this report).

11.5 INTERNAL MATTERS OF THE EXECUTIVE COUNCIL (agenda item 11.5)

GENERAL CONSIDERATIONS

11.5.1 The Executive Council welcomed the initiative to have a special session that provided an opportunity to discuss freely major and/or emerging issues of relevance to the Organization. It had an extensive exchange of views on hydrometeorological security and resource mobilization as the two primary themes.

11.5.2 The Council deliberated on a number of issues associated with those two themes as reflected in the following paragraphs.

HYDROMETEOROLOGICAL SECURITY

11.5.3 The Council considered that hydrometeorological security might be defined as the state of protection of an individual, society or state from the influence of extreme weather and/or climate events as well as changes to weather, climate and water conditions. It noted that over the decade from 1991 to 2000, more than 70 per cent of material losses and up to 90 per cent of people affected by disasters were victims of extreme natural events of meteorological and hydrological origin, which constituted about 90 per cent of all natural disasters.

11.5.4 The Council agreed that the discussion enabled the formulation of WMO's view on the role and significance of hydrometeorological security as an integral part of the national security of each WMO Member, and thus part of the state responsibility.

11.5.5 Moreover, the Council recognized that there was an increasing need to meet the challenges of sustainable development, and that there had been an increasing number of stakeholders that were seeking solutions to the widening range of concerns. Competition for resources had thus become more intense. Those developments had had considerable effects on the resource mobilization efforts of WMO. Hence, a clear and visionary resource mobilization policy and strategy was a matter of great importance to the Organization, which should guide the Organization in keeping abreast of, and assessing, pertinent developments.

11.5.6 The discussion addressed how the relevant issues could be:

- (a) Brought to the frontline agenda of policy development and implementation at national and international levels in relation to sustainable development;
- (b) Used as a basis for national, regional and international cooperation; and
- (c) Further pursued by WMO and its Members, especially their NMHSs.

ENHANCED INTEGRATION

11.5.7 The Council stressed the importance of enhanced integration of WMO Programmes and NMHSs activities, particularly to address better cross-cutting issues that required multidisciplinary approach. The Council specially noted that point in relation to the multi-hazard approach being developed for natural disaster prevention and mitigation.

11.5.8 The Council noted that the trend towards enhanced integration had been taking place in areas like observations system, WMO information system as well as in cross-cutting programmes like those on natural disaster prevention and mitigation, space and LDCs.

11.5.9 The Council recognized that enhanced integration was crucial to the improvement of the service delivery of WMO and the NMHSs in areas of particular relevance to society. The Council believed that WMO must re-structure itself in light of pertinent evolving needs as well as recent trends and developments. That included, among other things, the way the Organization should make use of the scientific competence available in technical commissions and the way WMO capacity-building efforts were to be further developed.

LINKAGE TO NEEDS OF, AND BENEFITS TO, SOCIETY

11.5.10 The Council highlighted the importance of clearly demonstrating that WMO and the broader institutional meteorological and related community, particularly the NMHSs, were addressing the need of, and providing social and economic benefits to, society.

11.5.11 The unique operational capability and overall contribution of NMHSs, particularly providing weather warnings and other services 24 hours a day, seven days a week, and 365 days in a year should be emphasized. Similar significant contributions in climate- and water-related warnings and other services were also to be highlighted. The Council particularly underscored that those warnings and services could only be truly of value if they also lent themselves to good utilization. Hence, users' views and feedback were also important.

11.5.12 The Council agreed that the WMO long-term planning must clearly demonstrate the pertinent services provided to society, as well as the social and economic benefits that accrued, such as through end-to-end services. The Council especially noted that a dollar spent on disaster preparedness could prevent seven dollars in disaster-related losses, and that developing countries, especially LDCs, were highly vulnerable to natural disasters which could wipe out 10 per cent to 15 per cent of a developing nation's gross domestic product.

11.5.13 The Council drew attention to recent developments in which greater importance was given to meteorological and related services through socio-economic benefits studies, such as the Roshydromet enhancement project supported by the Russian Federation Government and the World Bank. The Council encouraged the promotion of such socio-economic benefits studies and the sharing of experiences and best practices that could be helpful in demonstrating the linkage to society's needs.

PARTNERSHIPS

11.5.14 The Council agreed on the importance of partnerships at the national, regional and international levels, taking into account the whole array of stakeholders.

11.5.15 The Council especially stressed the importance of partnership efforts at the national level, including in ensuring collaboration that would benefit society such as through improved provision of user-oriented products and services. That also entailed improvement in the capability of the NMHSs as providers of such services, from observation to research and on to operation, in which partnerships could also play an important role. Nonetheless, the Council affirmed that

the primary responsibility at the national level for improved services and related partnerships rested with the NMHSs.

COMMUNICATION AND ADVOCACY

11.5.16 The Council agreed that WMO and NMHSs would be well-served by a proactive strategic communication policy that would seek to inform, advise and influence decision makers, users and the general public, of the role and contributions of WMO and NMHSs which were of benefit to society.

11.5.17 In that connection, it was necessary to learn the strategic needs and language of the target audience of those information and communications, especially decision makers, economists and development planners. Close working relationship with the media would be highly desirable.

11.5.18 Recognizing that speaking to government was an art, there was a need to develop further experience and expertise in that area, including building, bridging and managing appropriate relationships with stakeholders concerned. That included a broader concept of the management of risks, including physical and political risks.

RESOURCE MOBILIZATION

11.5.19 An important aspect of resource mobilization was the recognition of the important role played by appropriate communications and advocacy. The resource mobilization efforts of WMO and NMHSs would be bolstered by promoting the conviction that resources for the provision of meteorological, hydrological and related services should be seen as investments rather than expenditures, in view of the significant socio-economic returns those provided.

11.5.20 The Council urged the pursuit of efforts in individual countries for specific projects, e.g., in natural disaster prevention and mitigation, noting that much of resource allocation was country-driven and country/region-specific.

11.5.21 There should be greater emphasis on end-users and the benefits to them. Resource sought and/or available should link to the realization of the high-level objectives of the Organization's plan. A case example had been in the effort to advance tsunami early warning systems in the Indian Ocean and other areas at risks, which were being pursued as part of a multi-hazard approach in support of the realization of the WMO strategies contained in the 6LTP.

11.5.22 As new resources were tapped and developed, it was also important to ensure the continuing availability of resources from "traditional" sources like the government and the aviation sector.

CONCLUDING CONSIDERATIONS

11.5.23 The Council expressed its appreciation for the present special session, which enabled it to identify best practices and lessons learnt as well as consider key approaches for the success of WMO and NMHSs in their joint and respective endeavours.

11.5.24 The Council was of the view that the session had led to a better understanding of areas of concern which needed to be addressed, such as capacity-building, and the need to recognize the interdependence of WMO Members especially their NMHSs. The latter underscored the importance of networking to ensure success of weather, climate and water-related activities.

11.5.25 The Council called on Members, especially their NMHSs, to take proactive efforts that would reinforce the

concept of hydrometeorological security as part of the national priority that would lead to improved resource mobilization.

11.5.26 The Council requested the Secretary-General to facilitate the preparation of a clear vision and strategy to develop and realize further the various elements identified, making use of existing mechanisms available to the Organization, including the Secretariat, the Council itself and its subsidiary bodies.

11.5.27 The Council recognized that the current mood for change was a positive development that should be reinforced, facilitating the Organization's and NMHSs' quest to be more responsive, proactive and relevant.

11.5.28 The Council noted the value of discussing freely issues of concern to WMO and NMHSs and requested that similar arrangements be made at its future sessions.

12. SCIENTIFIC LECTURES AND DISCUSSIONS

(agenda item 12)

12.1 SCIENTIFIC LECTURES AND DISCUSSIONS (agenda item 12.1)

12.1.1 The Executive Council, at its last session, selected the following two specific lecture themes:

- (a) The role of NMHSs in natural disaster reduction; and
- (b) Climate A resource for social and economic development.

12.1.2 The President introduced the two distinguished experts who had been invited to deliver the following lectures:

Topic (a) Mr Chiu-Ying Lam, (Permanent Representative of Hong Kong, China); and

Topic (b) Dr M.H. Glantz (NCAR, USA).

12.1.3 The President thanked Messrs Lam and Glantz for their lectures. The Council requested the Secretary-General to arrange for the appropriate publication of the lectures.

12.2 ARRANGEMENTS FOR SCIENTIFIC LECTURES DURING THE FIFTY-EIGHTH SESSION OF THE EXECUTIVE COUNCIL (agenda item 12.2)

12.2.1 The Executive Council decided that the subjects of the scientific lectures to be presented at its fifty-eighth session should be:

- (a) The World Climate Research Programme: Achievements and Prospects; and
- (b) The role of WMO (and/or NMHSs) in the implementation of the GEOSS.

12.2.2 The Council requested the Secretary-General to make the necessary arrangements, including the selection of lecturers for that purpose.

12.3 ARRANGEMENTS FOR THE ELEVENTH INTERNATIONAL METEOROLOGICAL ORGANIZATION LECTURE (agenda item 12.3)

12.3.1 The Executive Council decided that WMO should continue the practice of selecting one distinguished scientist to deliver the IMO Lecture and prepare the publication.

12.3.2 The Council further decided that Professor P. Lemke should be invited to deliver the lecture at Fifteenth Congress on the subject of Polar meteorology: the role of the Arctic/Antarctic in the global atmospheric environment.

13. REVIEW OF PREVIOUS RESOLUTIONS OF THE EXECUTIVE COUNCIL (agenda item 13)

In accordance with Rule 27 of its Rules of Procedure, the Executive Council reviewed those of its previous resolutions which were still in force at the time of the fifty-seventh session and adopted **Resolution 22 (EC-LVII)**.

14. DATE AND PLACE OF THE FIFTY-EIGHTH AND FIFTY-NINTH SESSIONS OF THE EXECUTIVE COUNCIL (agenda item 14)

14.1 The Executive Council agreed that the fifty-eighth session of the Council would be held in Geneva from 20 to 30 June 2006.

14.2 The Council also agreed that the fifty-ninth session of the Council would be held at the Headquarters of the Organization from 28 to 30 May 2007 immediately after Fifteenth Congress.

15. CLOSURE OF THE SESSION (agenda item 15)

The fifty-seventh session of the Executive Council closed at 5.25 p.m. on 1 July 2005.

RESOLUTIONS ADOPTED BY THE SESSION

RESOLUTION 1 (EC-LVII)

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

THE EXECUTIVE COUNCIL,

NOTING Resolution 1 (EC-LVI) — Intergovernmental Panel on Climate Change,

RECOGNIZING that the IPCC faces a heavy workload over the ongoing assessment period with preparing the Fourth Assessment Report, as well as the revised Guidelines for National Greenhouse Gas Inventories and a Special Report requested by the UNFCCC,

NOTES with appreciation the increased participation of experts from developing countries and from countries with economies in transition in the writing teams for ongoing reports and other IPCC activities, and the benefits for capacity-building that arise from IPCC activities;

COMMENDS the Panel for the successful completion of the Special Report on Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons and progress in preparing the Special Report on Carbon Dioxide Capture and Storage and the 2006 IPCC Guidelines for National Greenhouse Gas Inventories;

COMMENDS Mr R.K. Pachauri for guiding the preparations for the Fourth Assessment Report;

NOTES with appreciation the Panel's decision to prepare a Synthesis Report of the Fourth Assessment Report;

REQUESTS the Panel to continue to work closely with the UNFCCC and provide scientific, technical and socio-economic advice through the development of Special Reports, Technical Papers and Methodology Reports;

ENCOURAGES the WCP, WCRP and GCOS to work closely with IPCC in developing their work programmes and enhancing dissemination of information and outreach, and to contribute to the IPCC assessment work;

REQUESTS the Secretary-General, jointly with the Executive Director of UNEP, to maintain financial and organizational support to the IPCC Secretariat, and to assist with the publication and dissemination of IPCC reports;

INVITES WMO Members to ensure effective inputs to the IPCC activities, and make experts available to contribute to the assessment process;

EXPRESSES its appreciation to governments, institutions and organizations who have generously contributed and are contributing to the work of the IPCC and to the IPCC Trust Fund;

URGES all governments and relevant intergovernmental organizations to continue their participation in the IPCC activities and, where possible, to increase their financial support for the IPCC activities through contributions to the WMO/UNEP IPCC Trust Fund.

RESOLUTION 2 (EC-LVII)

REPORT OF THE THIRTEENTH SESSION OF THE COMMISSION FOR BASIC SYSTEMS

THE EXECUTIVE COUNCIL,

NOTING the *Abridged Final Report with Resolutions and Recommendations of the Thirteenth Session* of the Commission for Basic Systems (WMO-No. 985),

DECIDES:

- (1) To note the report;
- (2) To note Resolutions 1, 2 and 3 (CBS-XIII);
- (3) To take action on each of the recommendations as follows:

Recommendation 1 (CBS-XIII) — Required training relevant to AMDAR

- (a) Approves this recommendation;
- (b) Requests CAeM and CBS to establish a Task Team to evaluate current activities such as the CGMS/WMO Virtual Lab for satellite data utilization, systems such as VISIT View, and to prepare appropriate guidance;
- (c) Requests Regional Rapporteurs/Coordinators on Regional Aspects of the GOS, in consultation with

the OPAG on IOS Rapporteur on AMDAR Activities and other appropriate focal points in their Regions, to develop a questionnaire on the AMDAR training requirements and to send it to Members.

Recommendation 2 (CBS-XIII) — Amendments to the Manual on the Global Observing System (WMO-No. 544), Volume I and the Guide on the Global Observing System (WMO-No. 488), Part II

Approves this recommendation.

Recommendation 3 (CBS-XIII) — Amendments to the Manual on the Global Telecommunication System (WMO-No. 386), Volume I, Parts I and II

Approves this recommendation to take effect from 9 November 2005.

Recommendation 4 (CBS-XIII) — Amendments to the Manual on Codes, Volume I.2

Approves this recommendation to take effect from 2 November 2005.

Recommendation 5 (CBS- XIII) — Amendments to the Manual on Codes, Volume I.1

Approves this recommendation to take effect from 2 November 2005.

Recommendation 6 (CBS-XIII) — Amendments to the Manual on the Global Data-Processing and Forecasting System (WMO-No. 485)

Approves this recommendation to take effect from 1 November 2005.

Recommendation 7 (CBS-XIII) — Review of resolutions of the Executive Council based on previous recommendations of the Commission for Basic Systems or related to the World Weather Watch

- (a) Approves this recommendation;
- (b) Agrees to keep in force Resolutions 12, 14 and 15 (EC-LV) and Resolutions 2, 8 and 9 (EC-LVI);
- (c) Agrees not to keep in force Resolutions 8, 16 and 17 (EC-LV).

Recommendation 1 (CBS-05) — Amendment to the Manual on the Global Data-Processing and Forecasting System (WMO-No. 485), Volume 1, new Attachment II.8, entitled: “Standardized Verification System (SVS) for Long-Range Forecasts (LRF)”, replacing current Attachment II.8 and Attachment II.9

Approves this recommendation for implementation to take effect from 1 November 2005.

RESOLUTION 3 (EC-LVII)

GLOBAL CLIMATE OBSERVING SYSTEM

THE EXECUTIVE COUNCIL,

NOTING:

- (1) Resolutions 10 (Cg-XIV) — Global Climate Observing System, and 9 (Cg-XIV) — GCOS Climate Monitoring Principles,
- (2) Resolutions 40 (Cg-XII) — WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities, and 25 (Cg-XIII) — Exchange of hydrological data and products,
- (3) The *Second Report on the Adequacy of the Global Observing Systems for Climate in Support of the UNFCCC* (GCOS-82, WMO/TD-No. 1143),
- (4) The *Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC* (GCOS-92, WMO/TD-No. 1219),
- (5) Decision 5/CP.10 — Implementation of the global observing system for climate, of the tenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, Buenos Aires, 6-18 December 2004,
- (6) The establishment of the Intergovernmental Group on Earth Observations and its 10-year Implementation Plan and Reference Document,

RECOGNIZING:

- (1) The major contribution provided by the Implementation Plan as an action framework for implementing an integrated global observing system for climate,
- (2) The need for the direct involvement of WMO Members, technical commissions and Programmes in implementing many of the actions in the Plan,
- (3) The importance of the Conference of the Parties to the UNFCCC as a mechanism whereby Members can address deficiencies in the observing systems required to meet their commitments to the Convention,

URGES Members to:

- (1) Fully support and participate in the implementation of the relevant actions in the Implementation Plan, including coordination at the national level to ensure balanced development of national observing systems for climate;

- (2) Assist other Members in improving their systems contributing to global coverage of the GCOS surface network (GSN) and GCOS upper-air network (GUAN) and in implementing priority projects in their Regional Action Plans;
- (3) Enhance their work and collaboration on observation of the Essential Climate Variables and on development of climate products as an important contribution to the WWW and the needs of climate users, and assist in improving basic systems in developing countries through participation in the GCOS Cooperation Mechanism;
- (4) Take the steps needed to provide historical data and metadata from their respective GSN stations to the GSN archive at the National Climatic Data Center in accordance with Resolutions 40 (Cg-XII) and 25 (Cg-XIII) and the GCOS Climate Monitoring Principles, in order to improve the data set needed for global analysis by Parties to the UNFCCC and the international climate science community;
- (5) Work with the WMO Space Programme and the Strategic Implementation Team of the Committee on Earth Observation Satellites to develop a coordinated response to the needs expressed in the GCOS Implementation Plan (for Members and Space Agencies participating in the space-based component of the GOS);
- (6) Support the efforts of the GCOS Secretariat to establish an implementation project to facilitate, monitor, and report on the actions of Parties and international organizations in response to the Implementation Plan;
- (7) Enhance their support to the GCOS Secretariat to the extent possible, through the secondment of experts or through contributions to the Climate Observing System Fund;

REQUESTS the GCOS Secretariat to:

- (1) Collaborate fully with GEO in carrying out the implementation of their respective Implementation Plans;
- (2) Provide assistance to Members in mobilizing resources needed to implement relevant action plans;
- (3) Provide information to the SBSTA at its twenty-third session (November 2005) and, as required, at subsequent sessions, on how the actions identified in the Implementation Plan are being implemented;

- (4) Continue close interaction with the Conference of the Parties to the UNFCCC as a high priority activity to maintain the UNFCCC's strong support for implementation and maintenance of the global observing system for climate and to ensure that the Parties' needs for systematic observation are met;

REQUESTS the presidents of technical commissions to ensure that the relevant actions identified in the Implementation Plan are incorporated, as appropriate, in the work plans of their Commissions;

REQUESTS the Secretary-General to:

- (1) Make every effort to identify the resources needed to maintain basic operations of the GCOS Secretariat and to monitor and report on the actions in the Implementation Plan;
- (2) Incorporate the relevant actions within the Implementation Plan into the WMO Programmes and coordinate with the presidents of technical commissions on their work plans.

RESOLUTION 4 (EC-LVII)

REPORT OF THE TWELFTH SESSION OF THE COMMISSION FOR HYDROLOGY

THE EXECUTIVE COUNCIL,

HAVING CONSIDERED the *Abridged Final Report with Resolutions and Recommendations of the Twelfth Session of the Commission for Hydrology* (WMO-No. 979),

DECIDES:

- (1) To note the report;
- (2) To note Resolutions 1 and 2 (CHy-XII);
- (3) To embody the substance of Recommendation 4 (CHy-XII) in Resolution 22 (EC-LVII);
- (4) To take action on the other recommendations as follows:

Recommendation 1 — Amendments of the WMO Technical Regulations (WMO-No. 49), Volume III-Hydrology

- (a) Approves the recommendation;
- (b) Requests the Secretary-General to take the necessary actions.

Recommendation 2 — WMO Strategy on Education and Training in Hydrology and Water Resources

Approves the recommendation.

Recommendation 3 — Revision of the scope of the WMO Regional Meteorological Training Centres

Approves the recommendation and requests the Executive Council Panel of Experts on Education and Training to study the most appropriate way of implementing it and report back to the forty-eighth session of the Executive Council.

NOTE: This resolution replaces Resolution 9 (EC-LIII), which is no longer in force.

RESOLUTION 5 (EC-LVII)

PARTICIPATION OF WMO IN THE INTERNATIONAL FLOOD INITIATIVE

THE EXECUTIVE COUNCIL,

NOTING the matter contained in the Executive Summary of the Concept Paper on the International Initiative on Floods, prepared by a joint team of experts representing the hydrological programmes of WMO, the United Nations Educational Scientific and Cultural Organization, the United Nations University and the International Association of Hydrological Sciences,

NOTING FURTHER the undeniable advantages to be derived from collaborating in the area of integrated flood management with sister international organizations of such recognized professional standards,

HAVING CONSIDERED that the financial resources required for an adequate participation of the Organization would be derived from the redistribution of funds already assigned to

related activities as part of the regular budget of the Hydrology and Water Resources Programme,

DECIDES to approve the participation of WMO in the International Flood Initiative according to the modalities outlined in the Executive Summary and explained in detail in the Concept Paper of the International Flood Initiative;

REQUESTS the Secretary-General to take the necessary measures to ensure that this new initiative provides an added value to Members in the area of integrated flood management;

REQUESTS the Secretary-General to take necessary measures to raise appropriate extrabudgetary resources for additional activities identified as a possible WMO contribution to the Initiative;

ENCOURAGES Members to support the Initiative through their active participation in its planning and implementation.

RESOLUTION 6 (EC-LVII)

2006-2007 BUDGET FOR SECRETARIAT SUPPORT TO THE TECHNICAL COOPERATION PROGRAMME

THE EXECUTIVE COUNCIL,

CONSIDERING that:

- (1) The Technical Cooperation Programme is an integral element of the mandate of WMO,
- (2) WMO is involved in the implementation, on a regular basis, of technical cooperation projects and programmes funded through extrabudgetary resources such as the development banks and trust funds,
- (3) There is a tendency that a number of Members require WMO's technical assistance in the development and implementation of projects using their own resources or through bilateral arrangements where WMO has no direct involvement in the execution of projects,
- (4) Through the phased implementation process of restructuring the Regional and Technical Cooperation Activities for Development Department, WMO Field Offices will be fully involved in the development and implementation of technical cooperation projects,
- (5) The new WMO support costs policy established by the fifty-sixth session of the Executive Council will continue to be applied in 2006-2007 to the Voluntary Cooperation Programme and trust funds projects,

NOTING:

- (1) The decisions of Fourteenth Congress on the organization and funding of the Technical Cooperation Programme (*Abridged Final Report with Resolutions of the Fourteenth World Meteorological Congress*, WMO-No. 960, general summary paragraphs 3.7.2.2 and 3.7.2.3),
- (2) The estimated 2006-2007 revenues from the implementation of projects and programmes funded through extrabudgetary resources including trust funds,
- (3) The budgetary and staff requirements for Secretariat support to the Technical Cooperation Programme in 2006-2007,

APPROVES the budget for 2006-2007 as contained in the annex to this resolution;

AUTHORIZES the Secretary-General to adjust actual expenditure during the biennium 2006-2007 to the actual revenues referred in NOTING (2) above;

AUTHORIZES FURTHER the Secretary-General to make transfers between the appropriation parts to the budget, as necessary in accordance with the financial regulations and guidance of Fourteenth Congress.

ANNEX TO RESOLUTION 6 (EC-LVII)

**2006-2007 BUDGET FOR SECRETARIAT SUPPORT TO
THE TECHNICAL COOPERATION PROGRAMME**

(thousands of Swiss francs)

<i>Revenue</i>	<i>Proposed 2006-2007</i>	<i>EC-LV approved 2004-2005</i>	<i>Expenditure</i>	<i>Proposed 2006-2007</i>	<i>EC-LV approved 2004-2005</i>
1. Regular budget	NIL	NIL			
2. Other extrabudgetary resources (trust funds, etc.)	1 600.0	5 450.0	(see below)		
TOTAL	1 600.0	5 450.0		1 600.0	5 450.0

**2006-2007 BUDGET FOR THE TECHNICAL COOPERATION
PROGRAMME EXPENDITURES**

	<i>Proposed 2006-2007</i>	<i>EC-LI approved 2004-2005</i>
Part 3.7 – SUPPORT TO THE TECHNICAL COOPERATION PROGRAMME		
3.701 Personnel RCD	1 060.0	3 185.0
3.702 Personnel ETR (Fellowships)	240.0	605.0
3.703 Personnel REM	300.0	965.0
3.704 Seconded experts, consultants and temporary staff	0.0	150.0
Total Part 3.7	<u>1 600.0</u>	<u>4 905.0</u>
Part 5 – OPERATION COSTS		
5.030 Stationery and office supplies	0.0	30.0
5.040 Office equipment and machines	0.0	20.0
5.050 Communications	0.0	75.0
5.060 Premises	–	–
5.070 Computer support	0.0	20.0
5.080 Travel	0.0	350.0
Total Part 5	<u>0.0</u>	<u>495.0</u>
Part 6 – OTHER BUDGETARY PROVISIONS		
6.040 Insurance, audit, contingencies and unforeseen expenditures	0.0	50.0
Total Part 6	<u>0.0</u>	<u>50.0</u>
GRAND TOTAL	<u>1 600.0</u>	<u>5 450.0</u>

RESOLUTION 7 (EC-LVII)

REPORT OF THE THIRTEENTH SESSION OF REGIONAL ASSOCIATION II (ASIA)

THE EXECUTIVE COUNCIL,
HAVING CONSIDERED the report of the thirteenth session of RA II,

DECIDES:

- (1) To note the report;
- (2) To note Resolutions 1 to 27 (XIII-RA II);

REQUESTS the Secretary-General to bring the above decision to the attention of all concerned.

NOTE: This resolution replaces Resolution 1 (EC-LIII), which is no longer in force.

RESOLUTION 8 (EC-LVII)

**REPORT OF THE FOURTEENTH SESSION OF REGIONAL ASSOCIATION IV (NORTH AMERICA,
CENTRAL AMERICA AND THE CARIBBEAN)**

THE EXECUTIVE COUNCIL,
HAVING CONSIDERED the report of the fourteenth session of RA IV,

DECIDES:

- (1) To note the report;
- (2) To note Resolutions 1 to 19 (XIV-RA IV);

REQUESTS the Secretary-General to bring the above decision to the attention of all concerned.

NOTE: This resolution replaces Resolution 2 (EC-LIII), which is no longer in force.

RESOLUTION 9 (EC-LVII)

NATURAL DISASTER PREVENTION AND MITIGATION

THE EXECUTIVE COUNCIL,

NOTING:

- (1) Resolution 29 (Cg-XIV) — Natural Disaster Prevention and Mitigation Programme,
- (2) *The Abridged Final Report with Resolutions of the Fourteenth World Meteorological Congress* (WMO-No. 960), general summary paragraphs 7.4.1 to 7.4.21 and 3.4.1.23,
- (3) Resolution 5 (EC-LVI) — Executive Council Advisory Group on Natural Disaster Prevention and Mitigation,
- (4) *The Abridged Final Report with Resolutions of the Fifty-sixth Session of the Executive Council* (WMO-No. 977), general summary paragraphs 11.1 to 11.13,
- (5) The outcome documents of the World Conference on Disaster Reduction (Kobe, Hyogo, Japan, 18-22 January 2005), including the Hyogo Declaration and the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters,
- (6) That several NMHSs have established partnerships with disaster risk management agencies at the national and regional levels and their experience would be valuable for the formulation of the DPM Programme,
- (7) The outcomes of the first meeting of the Executive Council Advisory Group on Disaster Prevention and Mitigation (Geneva, 18-19 March 2005),
- (8) The Revised Implementation Plan of the DPM Programme,

RECOGNIZING:

- (1) That the impacts of weather-, climate- and water-related hazards account for near 90 per cent of loss of life and that nearly 65 per cent of economic loss are due to all natural disasters,
- (2) The increasing concern of the international community on issues relating to disaster risk reductions and subsequent activities at the international, regional and national levels in response to the Hyogo Framework for Action,
- (3) The various efforts made by the WMO Secretariat to establish an effective programme for implementing

cross-cutting national disaster prevention and mitigation involving WMO and its Members, through the NMHSs, and strategic targeted partnerships at the international, regional and national levels,

- (4) The critical role of WMO and NMHSs in the area of disaster reduction and the responsibility that lies on WMO and NMHSs to ensure that the core technical and scientific capabilities are most effectively integrated in the disaster reduction decision processes at the international, regional and national levels. This is necessary to reduce loss of life, impacts on quality of life, economic set back and environmental degradation caused by hazards of hydrometeorological origin,

DECIDES:

- (1) To endorse the recommendations set forth in the Report of the Executive Council Advisory Group on Disaster Prevention and Mitigation as outlined in general summary paragraph 3.9.2;
- (2) To adopt the Revised Implementation Plan of the DPM Programme;

REQUESTS:

- (1) The Secretary-General to bring the Hyogo Framework to the attention of Members to urge their Governments to adopt and implement the recommendations;
- (2) The Secretary-General to proceed with the activities outlined in the Revised Implementation Plan of the DPM Programme as a matter of high priority;
- (3) The Secretary-General to enhance the capacity of the DPM Programme Office to coordinate and execute the Revised Implementation Plan of the DPM Programme, through increased resources for the DPM Programme Office;
- (4) The NMHSs to participate actively in the DPM Programme under close cooperation with various disaster prevention, mitigation, and emergency authorities in their countries;
- (5) The Members to consider secondment to the DPM Programme Office as a means of providing needed expertise.

RESOLUTION 10 (EC-LVII)

CONSIDERATION OF THE ACCOUNTS OF THE WORLD METEOROLOGICAL ORGANIZATION FOR THE YEAR 2004

THE EXECUTIVE COUNCIL,

RECALLING Resolution 14 (EC-LVI) — Consideration of the accounts of the World Meteorological Organization for the biennium 2002-2003,

NOTING Article 15 of the Financial Regulations,

CONSIDERING the financial report of the Secretary-General on the accounts of the Organization for the year ended 31 December 2004 and the report of the External Auditor to the Executive Council,

GIVES FORMAL APPROVAL to the audited financial accounts of the World Meteorological Organization for the year 2004;

REQUESTS the Secretary-General to transmit the financial statements of the accounts together with his report and the

report of the External Auditor thereon to all Members of the World Meteorological Organization;

DECIDES that financial statements will be audited on an annual basis starting 2005;

REQUESTS the Secretary-General to prepare amendments to the Financial Regulations, as appropriate, on the frequency with which financial statements are prepared and audited;

REQUESTS FURTHER the Secretary-General to simplify financial arrangements by transferring support funds to the General Fund;

NOTING with concern the substantial amounts of outstanding assessed contributions of certain Members,

URGES the Members to clear their dues at an early date.

RESOLUTION 11 (EC-LVII)

TERMS OF REFERENCE AND MEMBERSHIP OF THE AUDIT COMMITTEE

THE EXECUTIVE COUNCIL,

NOTING the terms of reference of the Audit Committee as outlined in Resolution 15 (EC-LVI) — Establishment of an Audit Committee,

NOTING ALSO Recommendations 2.3 and 2.4 of the Audit Committee,

NOTING FURTHER Recommendation 6 of the External Auditor,
DECIDES:

- | | |
|--|--|
| <p>(1) To maintain the Audit Committee, reporting to the Executive Council, with the following terms of reference:</p> <p>(a) Systematic appraisal of the Secretary-General's actions to maintain and operate appropriate and effective internal controls;</p> <p>(b) Encourage the development of anti-fraud culture through its scrutiny function;</p> <p>(c) Review the operation and effectiveness of the Financial Regulations;</p> <p>(d) Review the Secretary-General's assessment and approach to risk;</p> <p>(e) Review, agree and approve the audit plans, arrangements for, and reports of Internal and External Audit;</p> <p>(f) Encourage liaison between the internal and external audit functions;</p> <p>(g) Confirm that audit and assurance arrangements have been conducted and delivered during the year to provide the necessary levels of assurance required by the Executive Council and Congress;</p> <p>(h) Ensure the timely, effective and appropriate responses from the Secretary-General with regard to audit recommendations;</p> | <p>(i) Monitor the delivery and content of financial statements in accordance with the requirement of financial regulations;</p> <p>(j) Confirm that audit recommendations have been implemented;</p> <p>(k) Review audit plans and reports of the Internal Auditor submitted by the Secretary-General to the Executive Council;</p> <p>(2) That the Audit Committee meets every four months and keeps the Executive Council informed of its work on a regular basis;</p> <p>(3) That the membership of the Audit Committee be as follows:
J.-P. Beysson
B. Kassahun
J.J. Kelly
R. Michelini
K. Nagasaka
Qin Dahe
Three financial experts from the United Nations system proposed by the Secretary-General and appointed by the President of WMO, taking into consideration the need to minimize the cost of their participation;</p> <p>(4) That the chairperson of the Audit Committee will be selected by the members of the Committee;</p> <p>(5) That representatives of the WMO Secretariat are present at the meetings of the Audit Committee only at the invitation of the Audit Committee chairperson;</p> <p>(6) To review the functioning of the Audit Committee at its fifty-eighth session.</p> |
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RESOLUTION 12 (EC-LVII)

TASK FORCE ON RECOMMENDATIONS EMANATING FROM THE AUDIT COMMITTEE

THE EXECUTIVE COUNCIL,

NOTING Recommendations 2.3 and 2.5 of the Audit Committee,

NOTING FURTHER Recommendations 10 and 11 of the External Auditor,

DECIDES:

- | | |
|---|--|
| <p>(1) To establish a Task Force on Recommendations Emanating from the Audit Committee, reporting to the Executive Council, to review the role, activities and outcomes of the Financial Advisory Committee vis-à-vis the Audit Committee to ensure that they are complementary and not overlapping;</p> <p>(2) That the Task Force meets prior to the fifty-eighth session of the Executive Council;</p> | <p>(3) That the Task Force includes the following members or the alternate designated by a member:
M.L. Bah
A.I. Bedritsky
A. Divino Moura
M.D. Everell
W. Kusch
G.B. Love</p> <p>(4) That the chairperson of the Task Force will be selected by the members of the Task Force;</p> <p>(5) To review the work of the Task Force at its fifty-eighth session.</p> |
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RESOLUTION 13 (EC-LVII)

**PROGRAMME AND BUDGET FOR THE SECOND BIENNIUM (2006-2007) OF THE
FOURTEENTH FINANCIAL PERIOD (2004-2007)**

THE EXECUTIVE COUNCIL,

NOTING:

- (1) Articles 3, 4, 6 and 7 of the Financial Regulations,
- (2) Financial Rules 106.1, 106.2, 107.1 and 107.2,
- (3) Resolution 30 (Cg-XIV) — Maximum expenditures for the fourteenth financial period,
- (4) Resolution 31 (Cg- XIV) — Results-based budgeting,
- (5) Resolution 19 (EC-LV) — Budget for the biennium 2004-2005,
- (6) Resolution 21 (EC-LVI) — Assessment of proportional contributions of Members for the years 2005-2007,

NOTING FURTHER that the programme and budget proposed by the Secretary-General was prepared in accordance with the above-mentioned regulatory framework,

HAVING CONSIDERED the programme activities and budgetary resource allocation proposed by the Secretary-General,

ADOPTS the programme and budget for 2006-2007, as given in Annex 1 to this resolution;

DECIDES that the contributions of Members will be assessed as defined in Resolution 21 (EC-LVI);

APPROVES the programmes proposed by the Secretary-General, in particular, the expected results and the performance indicators for 2006-2007;

APPROVES FURTHER:

- (1) The list of possible sessions of panels and working groups and of symposia, technical conferences, seminars and workshops as contained in Annex 2 to this resolution, subject to the availability of funds within the approved budget following the guidelines set by Fourteenth Congress; and

- (2) The sessions of the following technical commissions and regional associations:
Commission for Basic Systems (extraordinary session, 2006)
Commission for Instruments and Methods of Observation (fourteenth session, 2006)
Commission for Atmospheric Sciences (fourteenth session, 2006)
Commission for Agricultural Meteorology (fourteenth session, 2006)
Commission for Aeronautical Meteorology (thirteenth session, 2006)
Regional Association I (fourteenth session, 2006)
Regional Association III (fourteenth session, 2006)
Regional Association V (fourteenth session, 2006)

AUTHORIZES the Secretary-General:

- (1) To re-appropriate any unspent balance that may arise from the first biennial budget (2004-2005) to the corresponding parts of the second biennial budget (2006-2007) in accordance with Financial Regulation 7.3;
- (2) To make transfers between appropriation parts of the budget for the biennium, as necessary, to deliver better the programmes in accordance with Financial Regulation 4.2;
- (3) To approve amendments to the list of possible sessions of panels and working groups and of symposia, technical conferences, seminars and workshops as contained in Annex 2 to this resolution.

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ANNEX 1 TO RESOLUTION 13 (EC-LVII)
BUDGET FOR THE SECOND BIENNIUM (2006–2007) OF THE THIRTEENTH FINANCIAL PERIOD
(thousands Swiss francs)

<i>Revenue</i>		<i>Expenditures</i>	<i>Budget for 2006–2007</i>
Assessed contributions	124 900.0	1. Policy-making organs	3 917.1
		2. Executive Management	7 369.3
Cash surplus resulting from the thirteenth financial period	1 730.2	3. Scientific and technical programmes	
		3.0 Overall coordination	3 844.1
		3.1 World Weather Watch Programme	11 531.9
		3.2 World Climate Programme	12 517.4
		3.3 Atmospheric Research and Environmental Programme	6 878.3
		3.4 Applications of Meteorological Programme	8 286.9
		3.5 Hydrology and Water Resources Programme	5 596.7
		3.6 Education and Training Programme	7 292.6
		3.7 Technical Cooperation Programme	2 996.1
		3.8 Regional Programme	8 072.3
		3.9 Natural Disaster Prevention and Mitigation Programme	1 680.5
		3.10 WMO Space Programme	2 067.3
		Total Part 3	<u>70 764.1</u>
		4. Linguistic, Publication and Conference Services	21 327.5
		5. Resource Management	20 905.3
		6. Other budgetary provisions	960.7
		7. Acquisitions of capital assets — Headquarters building	1 386.2
TOTAL	<u>126 630.2</u>	TOTAL	<u>126 630.2</u>

ANNEX 2 TO RESOLUTION 13 (EC-LVII)

LIST OF POSSIBLE SESSIONS OF PANELS AND WORKING GROUPS AND OF SYMPOSIA, TECHNICAL CONFERENCES, SEMINARS AND WORKSHOPS AS CONTAINED IN THE PROGRAMME AND BUDGET PROPOSALS FOR THE BIENNIUM 2006-2007

*Project
Code*

PANELS, WORKING GROUPS, STUDY GROUPS AND MEETINGS OF EXPERTS

Part 1: Policy-making organs

- 100011 (a) Session of Fifteenth Congress (2007)
- 100021 (b) Executive Council session (EC-LVIII) (2006)
- 100021 (c) Executive Council session (EC-LVIX) (2007)
- 100021 (d) Audit Committee (1 in 2006, 2 in 2007)
- 100021 (d) Financial Advisory Committee (2006,2007)
- 100031 (e) Bureau sessions (2006, 2007)

Part 3: Scientific and technical programmes

Major Programme 3.0: Overall coordination of the scientific and technical programmes

- 300011 (a) Meetings of Presidents of Technical Commissions (2006, 2007)
- 300021 (b) Meetings of the EC Advisory Group on the Long-term Planning (2006)
- 300022 (c) Meetings of the EC Working Group on the Meteorological Exchange of Data and Products (2006)
- 300023 (d) Meetings of the EC Advisory Working Group on the Role and Operation of NMHSs (2007)

Major Programme 3.1: World Weather Watch Programme

- 301001 (a) CBS-Ext.(2006)
- 301001 (b) CBS Management Group (2007)
- 301011 (c) Expert Team on Evolution of the GOS (2006)
- 301011 (d) Expert Team on Requirements for Data from AWS (2006)
- 301021 (e) CBS/Expert Team Meeting on Information Systems and Services (2006)
- 301022 (f) CBS/Expert Meeting on Data-communication Techniques and Structure (2006)
- 301025 (g) CBS/Steering Group Radio-frequency Coordination (2006)
- 301031 (h) Expert Meeting on the Use of NWP/EPS Products (2006)
- 301031 (i) Expert Meeting on the Use of Operational Long-range Forecasts (2007)
- 301034 (j) Expert Meeting on DPFS in Early Warning Systems (2007)
- 301041 (k) Meetings on FWIS Development (2006,2007)
- 301041 (l) CBS/Expert Meeting on Information Technology (2007)
- 301043 (m) Two CBS/Expert Meetings on Data Representation, Codes and Migration (2006, 2007)
- 301052 (n) Expert Meeting on Innovative Cooperation
- 301061 (o) CIMO-XIV (2006)
- 301061 (p) CIMO Management Group (2006)
- 301062 (q) Expert Team on Regional Instrument Centres (2006)
- 301062 (r) Expert Team on Radiation Measurements (2006)
- 301081 (s) ESCAP/WMO Typhoon Committee sessions (2006, 2007)
- 301081 (t) WMO/ESCAP Panel on Tropical Cyclones sessions (2006, 2007)
- 301081 (u) RA IV Hurricane Committee sessions (2006, 2007)
- 301082 (v) Expert Meeting on Formulation of TCP Sub-project (2006)
- 301092 (w) Meeting on Enhanced ERA Roles of RSMCs, NMHSs (2007)
- 301092 (x) Two Meetings on Development/Training of Expanded ERA Scope and Capabilities (2006, 2007)
- 301101 (y) EC Working Group on Antarctic Meteorology (2006)

Major Programme 3.2: World Climate Programme

- 302001 (a) Ad hoc Exploratory Committee on the Third World Climate Conference (2006)
- 302001 (b) Two CCI Management Group (2006, 2007)

- 202011 (c) EC Advisory Group on Climate and Environment (2006)
- 302011 (d) EC Advisory Group on Climate and Environment (2007)
- 302011 (e) Meeting of New Inter-agency Coordination Mechanism (2007)
- 302041 (f) Expert Team on Metadata for Climate Applications (2006)
- 302041 (g) Five Expert Meetings in Regions (3 in 2006, 2 in 2007)
- 302042 (h) Expert Team on Climate Indices (2007)
- 302042 (i) Expert Team Meeting in Regions (2007)
- 302051 (j) Expert Team on Research on Seasonal and Interannual Predictions (2007)
- 302051 (k) Expert Team on CLIPS Operations (2006)
- 302051 (l) Expert Team on Verification (2007)
- 302051 (m) Expert Team on Capacity-building (2007)
- 302051 (n) Expert Team on End-user Liaison (2006)
- 302052 (o) Expert Team on Operational Heat/Health Warnings (2006)
- 302052 (p) Expert Team on Heat-related Climate Indices and Use (2006)
- 302052 (q) Expert Team on Workshops and Training in Urban Climatology (2007)

Major Programme 3.3: Atmospheric Research and Environment Programme

- 303001 (a) Session of CAS (2006)
- 303001 (b) Two CAS/JSC Numerical Experiment (2006, 2007)
- 303001 (c) CAS Advisory Working Group (2007)
- 303011 (d) Two Technical Meetings in Support of Ozone Research Managers (2006, 2007)
- 303011 (e) Two Co-sponsor Expert Meeting on Ozone Assessment (2006, 2007)
- 303012 (f) Two Expert Meetings on EMEP Assessment (2006, 2007)
- 303013 (g) One Co-sponsored Expert Meeting on Hemispheric Air Pollution Transport (2007)
- 303021 (h) Meeting of CAS Working Group on Environmental Pollution and Atmospheric Chemistry (2007)
- 303022 (i) Two Technical Meetings on Quality Assurance (2006, 2007)
- 303022 (j) Two Expert Meetings on SAG Reactive Gases (2006, 2007)
- 303022 (k) Two Expert Meetings of SAG for Aerosols (2006, 2007)
- 303022 (l) Two Meetings of SAG on Precipitation Chemistry and Deposition (2006, 2007)
- 303022 (m) Two Expert Meetings of Radiation Experts and SAG for UV (2006, 2007)
- 303022 (n) Two Meetings on GAW Technical Subjects (2006, 2007)
- 303023 (o) Two Expert Meetings on Ozone or GHG Data and Measurements (2006, 2007)
- 303023 (p) Two Co-sponsored Meetings of SAG for GHGs (2006, 2007)
- 303023 (q) Co-sponsored Technical Meeting for Carbon Dioxide (2007)
- 303023 (r) Two Co-sponsored Meetings of SAG on Ozone (2006, 2007)
- 303024 (s) Two Co-sponsored Meetings on GAW Data Management (2006, 2007)
- 303025 (t) Two Meetings of SAG on GURME (2006, 2007)
- 303025 (u) Two Regional Technical Meetings on GURME (2006, 2007)
- 303031 (v) Two Science Steering Committee for the WWRP (2006, 2007)
- 303052 (w) Expert Meeting (2006)

Major Programme 3.4: Applications of Meteorology Programme

- 304011 (a) Expert Team on Product Verification (2007)
- 304012 (b) Expert Team on Media Issues (2006)
- 304014 (c) Expert Team on Public Understanding and Use of Warnings (2006)
- 304015 (d) Expert Meeting on Strategies Toward Capacity-Building (2006)
- 304016 (e) Expert Meeting on Strategies for Implementation of Disaster Reduction (2007)
- 304016 (f) Expert Meeting on Preparation of Guidelines on Disaster Reduction (2007)
- 304021 (g) Session of CAgM (2006)
- 304022 (h) Expert Meeting on Management of Natural Resources (2006)
- 304022 (i) Expert Meeting on Fire Danger Forecasting (2007)
- 304024 (j) Expert Meeting on Implementation of Climate Forecasts in Operational Agriculture (2007)
- 304031 (k) Session of CAeM (2006)
- 304031 (l) CAeM Management Group (2006)
- 304032 (m) CAeM PROMET Working Group (2006)
- 304041 (n) JCOMM Management Committee (2006)
- 304042 (o) IOC/WMO/CPPS Working Group on *El Niño* (2006)
- 304042 (p) JCOMM Expert Team on Maritime Safety Services (2006)

- 304042 (q) JCOMM Expert Team on Waves and Surges (2007)
- 304042 (r) JCOMM Expert Team on Sea-ice (2007)
- 304043 (s) JCOMM Expert Team on DM Practices (2006)
- 304044 (t) JCOMM Ship Observations Team (2007)

Major Programme 3.5: Hydrology and Water Resources Programme

- 305001 (a) One CHy Advisory Working Group (2006)
- 305001 (b) Five OPACHE Meetings (3 in 2006, 2 in 2007)
- 305011 (c) Expert Meeting on Review of Operational Manual for WRA (2006)
- 305021 (d) Expert Meeting on Long-Range Forecasting of Floods (2006)
- 305022 (e) Expert Meeting in Collaboration with other Agencies (2007)
- 305022 (f) Expert Meeting on Forecasting of Hydrology Droughts (2007)
- 305023 (g) Expert Meeting on Climate Change and Water Resources (2006)
- 305023 (h) Expert Meeting on Projects in WCP Water (2007)
- 305031 (i) Expert Meeting on the Hydrology of Small Islands (2006)
- 305041 (j) Expert Meeting on Institutional Capacity-building (2006)
- 305042 (k) Expert Meetings on Computer-aided Distance Learning (2007)
- 305051 (l) Expert Meeting on Strategic Water-related Programme (2006)
- 305052 (m) Expert Meeting on Global Coordination of Observation Activities (2007)

Major Programme 3.6: Education and Training Programme

- 306001 EC Panel of Experts on ETR (2007)

Major Programme 3.7: Technical Cooperation Programme

- 307011 (a) Sixth session of the EC Advisory Group of Experts on TCO (2006)
- 307011 (b) Informal Planning Meeting on VCP/TCO (2006)
- 307011 (c) Informal Planning Meeting on VCP/TCO (2007)

Major Programme 3.8: Regional Programme

- 308016 (a) Regional Association I (2006)
- 308016 (b) Regional Association III (2006)
- 308016 (c) Regional Association V (2006)
- 308017 (d) Advisory Working Group of RA V (2007)
- 308017 (e) Working Group on Tropical Cyclones of RA I (2007)
- 308017 (f) Working Group on Hurricanes of RA IV (2007)
- 308017 (g) Working Group on Tropical Cyclones of RA V (2006)
- 308025 (h) Meetings of Regional Capacity-building in Climate Application (2006, 2007)
- 308025 (i) Meeting of Capacity-building in Hydrology (2007)

Major Programme 3.9: Natural Disaster Prevention and Mitigation Programme

- 309001 (a) Meeting of the EC Advisory Group on Natural Disaster Prevention and Mitigation (2006)
- 309002 (b) Meeting for Development of Specific Design and Sustainability Issues of the Website (2007)

Major Programme 3.10: WMO Space Programme

- 310001 (a) Sixth session of the Consultative Meeting on High-Level Policy on Satellite Matters (2006)
- 310001 (b) Seventh session of the Consultative Meeting on High-Level Policy on Satellite Matters (2007)
- 310003 (c) Expert Team on Satellite System Utilization and Products (2006)
- 310006 (d) One Education and Training High-profile Event (2006)

IMPLEMENTATION COORDINATION MEETINGS

Major Programme 3.1: World Weather Watch Programme

- 301011 (a) Implementation Coordination Meeting on Integrated Observing System (2006)
- 301012 (b) GOS/GCOS Coordination Meeting (2007)
- 301013 (c) Two Subregional Implementation Coordination Meetings on Adaptable Observations (2007)
- 301023 (d) Implementation Coordination Meeting on MTN (2006)
- 301026 (e) Implementation Coordination Meeting on Specific Communication Technologies (2007)

- 301032 (f) Meeting on Implementation and Operation of Regional Models on PC
 301033 (g) Meeting of the Implementation Coordination Team on DPFS (2006)
 301091 (h) Meeting of Emergency Response Activities Coordination Group (2006)

Major Programme 3.2: World Climate Programme

- 302041 (a) Implementation Coordination Teams: Networks and Data Management (2006)
 302042 (b) Implementation Coordination Team: Data Set and Climate System Monitoring (2007)
 302051 (c) Working Group or Implementation/Coordination Team on CT (2006)

Major Programme 3.3: Atmospheric Research and Environment Programme

- 303012 (a) Two Implementation Coordination Meetings of Experts Supporting Conventions (2006, 2007)
 303024 (b) Two Implementation Coordination Meetings on New Requirement for GAW Data (2006, 2007)
 303025 (c) Two Implementation Coordination Meetings (2006, 2007)

Major Programme 3.4: Applications of Meteorology Programme

- 304013 (a) Implementation Coordination Team of OPAG/PWS (2007)
 304023 (b) Meeting on Implementation/Coordination Team on Agrometeorological Services (2006)
 304042 (c) JCOMM Services Programme Area Coordination Group (2007)
 304043 (d) JCOMM DM Programme Area Coordination Group (2006)
 304044 (e) JCOMM OBS Programme Area Coordination Group (2007)
 304047 (f) JCOMM Capacity-building Coordination Group (2006)

Major Programme 3.5: Hydrology and Water Resources Programme

- 305013 (a) WHYCOS International Advisory Group (2006)
 305023 (b) Coordination Panel of GTN-H (2007)
 305051 (c) Two Meetings of WMO/UNESCO LIAISON Committee for Hydrological Activities (2006, 2007)

Major Programme 3.7: Technical Cooperation Programme

- 307041 (a) LDCs Coordination Meeting for RA I (2006)
 307041 (b) LDCs Coordination Meeting for RA II (2007)

Major Programme 3.8: Regional Programme

- 308017 (a) Working Group on Planning and Implementation of WWW Meeting in RA II (2007)
 308017 (b) Working Group on Planning and Implementation of WWW Meeting in RA I (2007)
 308017 (c) Working Group on Hydrology and Implementation Coordination Meeting of RA I (2006)
 308017 (d) Working Group on Hydrology and Implementation Coordination Meeting of RA II (2007)
 308017 (e) Working Group on Hydrology and Implementation Coordination Meeting of RA III (2006)
 308017 (f) Working Group on Hydrology and Implementation Coordination Meeting of RA IV (2006)
 308017 (g) Working Group on Climate Application and Implementation Coordination Meeting of RA I (2006)
 308017 (h) Working Group on Climate Application and Implementation Coordination Meeting of RA II (2007)
 308017 (i) Working Group on Climate Application and Implementation Coordination Meeting of RA V (2006)
 308017 (j) Working Group on Climate Application and Implementation Coordination Meeting of RA VI (2006)

SYMPOSIA, TECHNICAL CONFERENCES, SEMINARS, WORKSHOPS AND TRAINING COURSES

Major Programme 3.0: Overall coordination of the scientific and technical programmes

- 300041 (a) Media Seminar (2006)
 300041 (b) International Conference in consultation with AMS, IABM and the International Weather Festival (2007)
 300041 (c) World Broadcast Meteorology Conference (2007)
 300042 (d) IPA Training for IPA Focal Points (2006, 2007)
 300042 (e) Media Training Workshop for NMHSs (2006)

Major Programme 3.1: World Weather Watch Programme

- 301012 (a) Training Seminar on CLIMAT and CLIMAT TEMP Reporting
 301013 (b) Workshop on Redesign of the GOS (2007)
 301022 (c) Roving seminar
 301024 (d) Roving seminar

- 301034 (e) Two Workshops on Applications of GDPFS Products for Severe Events (2006, 2007)
- 301034 (f) Three Training Workshops on Emergency Response Activities (2006, 2007)
- 301051 (g) Training Seminar on WWW Systems Planning
- 301051 (h) Training Seminar on WWW System Components and Codes
- 301063 (i) Technical Conference (TECO-2006)
- 301063 (j) Training Workshop for Instrument Specialists (2006)
- 301083 (k) Technical Conference Meeting of Tropical Cyclone RSMCs (2007)
- 301084 (l) Workshop on Storm Surges (2006)
- 301085 (m) Workshop on Tropical Cyclone Mitigation Systems (2006)
- 301085 (n) Seminar on Tropical Cyclone Disaster Reduction (2007)
- 301086 (o) Southern Hemisphere Training Course on Tropical Cyclone (2007)
- 301086 (p) RA I Training Course on Tropical Cyclone (2006)
- 301087 (q) Technical Conference on Tropical Cyclone and Storm Surges (2007)

Major Programme 3.2: World Climate Programme

- 302001 (a) Regional Support for Workshop Proceeding CCI (2006)
- 302023 (b) Regional Workshop on Observing System for Climate (2006)
- 302025 (c) Symposium on Climatic Factors in Desertification (2007)
- 302026 (d) Workshop and Training Seminar on Adaptation to Climate Change and Variability (2006)
- 302026 (e) Workshop and Organization of Climate Extremes Analysis and Database Development (2006)
- 302041 (f) One CDMS Training Seminar and Workshop (2006)
- 302041 (g) Training Seminar on Climate Data Rescue and Management (2006)
- 302051 (h) Two CLIPS Training Workshops (2 in 2007)
- 302051 (i) WMO International Conference on Decision Processes (2006)
- 302051 (j) Training Seminar Dealing with Climate Predictions and Floods (2006)

Major Programme 3.3: Atmospheric Research and Environment Programme

- 303032 (a) International Conference on QPF and Hydrology (2006)
- 303033 (b) Workshop on High-impact Weather Forecasts (2006)
- 303034 (c) Training Workshop on New Technology in Weather Prediction (2007)
- 303042 (d) International Workshop on Tropical Cyclones (2006)
- 303042 (e) Winter MONEX Quarter-Century Workshop (2007)
- 303051 (f) Technical Conference (2007)

Major Programme 3.4: Applications of Meteorology Programme

- 304016 (a) Training Seminar on Role of PWS in Natural Disaster Reduction (2007)
- 304021 (b) International Workshop on Agrometeorology Services (2006)
- 304021 (c) Workshop on Agricultural Meteorology and Climate Change (2007)
- 304023 (d) Roving Seminar on Application of GIS and Remote Sensing (2006)
- 304031 (e) Technical Conference on Aeronautical Meteorology (2006)
- 304032 (f) Training Seminars on Cost Recovery (2006)
- 304032 (g) Seminar on Use of Radar and Satellite Imagery for Aviation (2007)

Major Programme 3.5: Hydrology and Water Resources Programme

- 305012 (a) Roving Seminar on HOMS Component RA I (2006)
- 305012 (b) Roving Seminar on HOMS Component RA III (2007)
- 305012 (c) Roving Seminar on HOMS Component RA V (2007)
- 305012 (d) Roving Seminar on HOMS Component RA VI (2006)
- 305021 (e) Worldwide Synthesis Conference of the WMO Flood Initiative (2006)
- 305032 (f) Training Workshop on Links Between Hydrology Economy and Environment (2007)
- 305033 (g) Two Training Workshop on Estimate the Economic Value (2006, 2007)

Major Programme 3.6: Education and Training Programme

- 306024 (a) Regional Seminars for Training of Trainers (2006, 2007)
- 306024 (b) Workshop on HRD (2007)
- 306025 (c) Worldwide Symposium on Education and Training (2006)
- 306025 (d) Training Seminar on Management of Training Institutions (2006)
- 306041 (e) Training Seminar on Instruments (2006)

- 306041 (f) Training Events on Satellite Utilization (2006)
- 306041 (g) Training Workshop on Hurricane Forecasting and Warning (2006)
- 306041 (h) Regional Seminar on PWS and GDPFS in Support of Natural Disasters (2007)
- 306042 (i) Training Workshops on Clips Products Generation and Users (2007)
- 306042 (j) Roving Seminars on Climate (3 in 2006)
- 306042 (k) Training Workshops on Clips Climate Forecast and Verification (2007)
- 306043 (l) GAW Training Workshop on Measurements and Quality Assurance (2006)
- 306043 (m) Training Workshop on Weather Forecasting (2007)
- 306044 (n) Roving Seminars on Weather, Climate and Farmers (2006, 2007)
- 306044 (o) Training Workshops on Wave and Surge Forecasting (2007)
- 306045 (p) Training Course on Hydrological Forecasting (2006)
- 306045 (q) Training Course on Applied Hydrology and Information System for Water Management (2006)
- 306045 (r) Latin-American Course on Hydrology (2007)
- 306046 (s) Regional Training Seminars on Capacity-building in RA I, II and V (2 in 2006, 1 in 2007)

Major Programme 3.8: Regional Programme

- 308023 (a) Regional Seminar on RA I on Alternative Services Delivery/NMHS Administration (2006)
- 308023 (b) Regional Seminar on RA III on Alternative Services Delivery/NMHS Administration (2006)
- 308023 (c) Regional Seminar on RA V on Alternative Services Delivery/NMHS Administration (2006)
- 308023 (d) Regional Technical Conference in RA II (2006)
- 308024 (e) Regional Technical Conference in RA III (2007)
- 308024 (f) Regional Technical Conference in RA IV (2006)
- 308024 (g) Regional Technical Conference in RA VI (2006)
- 308025 (h) Regional Technical Conference for Technology Transfer on Satellite Instruments (2006)

Major Programme 3.9: Natural Disaster Prevention and Mitigation Programme

- 309001 Two User-driven Regional Workshops (2006, 2007)

Major Programme 3.10: WMO Space Programme

- 310002 (a) Two Regional Workshops for Transition (2006, 2007)
- 310005 (b) Three symposia (2 in 2006, 1 in 2007)
- 310006 (c) One Education and Training event (2006)

WORKING GROUPS, STUDY GROUPS AND MEETINGS OF EXPERTS FINANCED FROM THE WMO/ICSU/IOC JOINT CLIMATE RESEARCH FUND

- 8100 (a) Annual session of the WMO/ICSU/IOC Joint Scientific Committee for the WCRP (2006, 2007)
- 8100 (b) Biennial session of the JSC Officers (2006)
- 8300 (c) Annual sessions of the CAS/JSC Working Group on Numerical Experimentation (2006, 2007)
- 8300 (d) Sessions of the Working Group on Coupled Modelling (2006, 2007)
- 8300 (e) Annual sessions of the GEWEX Modelling Panel (2006, 2007)
- 8300 (f) Annual sessions of the CLIVAR Prediction Panel (2006, 2007)
- 8300 (g) Biennial session of the Cryospheric Modelling Panel (2006)
- 8300 (h) Biennial Workshop on Atmospheric Reanalysis (2007)
- 8400 (i) Annual sessions of the GEWEX Scientific Steering Group (2006, 2007)
- 8400 (j) Annual sessions of the GEWEX Hydrometeorology Panel (2006, 2007)
- 8400 (k) Annual sessions of the GEWEX Radiation Panel (2006, 2007)
- 8400 (l) Biennial Workshop for Baseline Surface Radiation Network (2006)
- 8400 (m) Annual sessions of the Panel on Cloud System Studies (2006, 2007)
- 8400 (n) Biennial Workshop on Land-surface Processes (2006)
- 8400 (o) Biennial Workshop on GEWEX Field Experiments (2006)
- 8400 (p) Expert Meeting on Data Management for GEWEX Projects (2007)
- 8500 (q) Annual sessions of the CLIVAR Scientific Steering Group (2006, 2007)
- 8500 (r) Annual sessions of the CLIVAR Monsoon Panel (2006, 2007)
- 8500 (s) Biennial session of the CLIVAR African Climate Variability Panel (2006)
- 8500 (t) Expert Meeting on Decadal to Centennial Climate Change (2007)
- 8500 (u) Biennial Workshop on Detection of Climate Change (2007)

8500	(v)	Biennial session of the Working Group on Air-Sea Fluxes (2006)
8500	(w)	Annual sessions of the Ocean Observations Panel (2006, 2007)
8500	(x)	Annual Implementation/Coordination Meetings for Ocean Observations (2006, 2007)
8600	(y)	Annual sessions of the Climate and Cryosphere (CliC) Scientific Steering Group (2006, 2007)
8600	(z)	Biennial Implementation/Coordination Meeting for Planning Cryosphere Observations (2006)
8600	(aa)	Biennial Expert Meeting on Cryosphere Data Management (2007)
8700	(ab)	Annual sessions of the SPARC Scientific Steering Group (2006, 2007)
8700	(ac)	Biennial Expert Workshop on Trends in Stratospheric Parameters (2006)
8700	(ad)	Biennial Expert Workshop on Stratospheric Processes (2007)
8800	(ae)	Annual sessions of the Joint Carbon Cycle Panel (2006, 2007)
8800	(af)	Annual sessions of the Joint Water or Food Resources Panel (2006, 2007)
8800	(ag)	Biennial session of the Joint Panel on Climate and Health (2007)
8800	(ah)	Annual sessions of the Climate Observations Panels (2006, 2007)
8800	(ai)	ESSP Open Science Conference (2006)

RESOLUTION 14 (EC-LVII)

HIGH PRIORITY ACTIVITIES FOR THE BIENNIUM 2006-2007

THE EXECUTIVE COUNCIL,

NOTING:

- (1) The programme and budget proposals for the second biennium (2006-2007) of the fourteenth financial period (2004-2007),
- (2) Articles 3, 4, 6 and 7 of the Financial Regulations,
- (3) Financial Rules 106.1, 106.2, 107.1 and 107.2,
- (4) Resolution 30 (Cg-XIV) — Maximum expenditures for the fourteenth financial period,
- (5) Resolution 31 (Cg- XIV) — Results-based budgeting,
- (6) Resolution 19 (EC-LV) — Budget for the biennium 2004-2005,
- (7) The *Abridged Final Report with Resolutions of the Fourteenth World Meteorological Congress* (WMO-No. 960) general summary paragraph 8.6,

NOTING FURTHER that the high priority activities proposed by

the Secretary-General have been prepared in accordance with the above-mentioned regulatory framework, as well as, with the decision of Fourteenth Congress with regard to the use of the cash surplus arising from the thirteenth financial period 2000-2003,

HAVING CONSIDERED the programme activities and budgetary resource allocation proposed by the Secretary-General, **ADOPTS** the budget for the high priority activities for 2006-2007, as given in the annex to this resolution;

APPROVES the programmes proposed by the Secretary-General, in particular, the expected results and the performance indicators for the high priority activities;

AUTHORIZES the Secretary-General to make transfers between appropriation parts of the 2006-2007 biennial budget including the approved resources for the high priority activities, in line with Financial Regulation 4.2.

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ANNEX I TO RESOLUTION 14 (EC-LVII)
HIGH PRIORITY ACTIVITIES FOR 2006-2007
(thousands Swiss francs)

<i>Revenue</i>	<i>Expenditures</i>	<i>Budget for 2006-2007</i>
Cash surplus resulting from the thirteenth financial period		-
	1. Policy-making organs	5 477.0
	2. Executive Management	552.1
	3. Scientific and technical programmes	
	3.0 Overall coordination	538.4
	3.1 World Weather Watch Programme	673.0
	3.2 World Climate Programme	390.0
	3.3 Atmospheric Research and Environmental Programme	450.0
	3.4 Applications of Meteorological Programme	104.0
	3.5 Hydrology and Water Resources Programme	255.9
	3.6 Education and Training Programme	100.0
	3.7 Technical Cooperation Programme	250.0
	3.8 Regional Programme	200.0
	3.9 Natural Disaster Prevention and Mitigation Programme	542.0
	3.10 WMO Space Programme	781.6
	Part 3	<u>4 284.9</u>
	4. Linguistic, Publication and Conference Services	640.0
	5. Resource Management	-
	6. Other budgetary provisions	-
	7. Acquisitions of capital assets — Headquarters building	-
TOTAL	TOTAL	<u>5 477.0</u>

RESOLUTION 15 (EC-LVII)

OUTLINE PRIORITIES AND RESOURCES FOR THE FIFTEENTH FINANCIAL PERIOD (2008-2011)

THE EXECUTIVE COUNCIL,

NOTING that:

- (1) The Council should undertake a discussion on the outline priorities, expected results and resources for the next financial period, which is held at the session of the Executive Council two years before Congress,
- (2) The Secretary-General submits his programme and budget proposals for the fifteenth financial period 2008-2011 for consideration by the fifty-eighth session of the Executive Council in 2006, taking into account the guidance provided by the present session of the Executive Council,
- (3) The Secretary-General revises his initial programme and budget proposals required for submission to Congress in 2007,
- (4) The Secretary-General proposed to the present session of the Executive Council the following programme priority areas for the fifteenth financial period:
 - (a) Contribution to the protection of life and property, especially natural disaster prevention and mitigation;
 - (b) Development of NMHSs and provision of services for the socio-economic benefits of nations, in particular, in the least developed countries;
 - (c) Climate change and its impact;
 - (d) Hydrology and water resources; and
 - (e) The WMO Space Programme;

DECIDES:

- (1) To establish programme and budget options for the fifteenth financial period based on zero nominal growth and zero real growth, using the reference base of CHF 249.8 million for the assessed contributions;

- (2) To review the priorities and expected results for the fifteenth financial period, taking into account the preparatory work leading to the Seventh WMO Long-term Plan;
- (3) To establish the Ad Hoc Group on the Presentation of the Programme and Budget for 2008-2011, with terms of reference as described in the annex to this resolution;

REQUESTS the Secretary-General:

- (1) To take into account the guidance of the Ad Hoc Group when preparing his programme and budget proposals for the fifteenth financial period 2008-2011 and to inform the members of the Executive Council of the work of the Ad Hoc Group;
- (2) To present a result-based programme performance report to facilitate comprehensive consideration of the programme and budget options for the fifteenth financial period;
- (3) To consolidate further the budgetary presentation by including, in particular, programme support income, interest income, income from sales of publications and from rental of facilities and to propose the necessary budget adjustment in the context of the proposed programme and budget for the fifteenth financial period (2008-2011);
- (4) To include in the budget presentation information on extrabudgetary resources;
- (5) To submit for approval revisions of the Financial Regulations, as appropriate, which reflect the adjustment in budgetary arrangements.

ANNEX TO RESOLUTION 15 (EC-LVII)

**TERMS OF REFERENCE OF THE AD HOC GROUP
ON THE PRESENTATION OF THE PROGRAMME AND BUDGET FOR 2008-2011**

1. The Ad Hoc Group on the Presentation of the Programme and Budget for 2008-2011 has been established by the fifty-seventh session of the Executive Council under the co-chairmanship of Messrs U. Gärtner and Chow Kok Kee.
2. The core members of the Ad Hoc Group are Ms. L. Gordon, Messrs J.P. Beysson, M. Husain, J.J. Kelly, K. Nagasaka, M. Mhita and R. Michelini. The Membership of the Ad Hoc Group is open to Members of the Executive Council who are invited to attend its meetings and participate in its work.
3. The mandate of the Ad Hoc Group is to provide the Secretariat with guidance on an improved results-based budget approach including the following issues:
 - (a) Linkage and coherence between the programme and budget for 2008-2011 and the preparatory work leading to the Seventh WMO Long-term Plan;
 - (b) Formulation of expected results and key performance indicators for 2008-2011;
 - (c) Mechanisms for the allocation of resources in accordance with expected results;
 - (d) Results-based budget format including corresponding budget tables and information on extrabudgetary resources.

RESOLUTION 16 (EC-LVII)

REPORTS OF THE JOINT INSPECTION UNIT

THE EXECUTIVE COUNCIL,

RECALLING United Nations General Assembly Resolution 54/16 — Joint Inspection Unit regarding a more effective system of follow-up on reports of the Joint Inspection Unit and the WMO procedures of follow-up on reports of the Joint Inspection Unit approved by the fifty-fourth session of the Executive Council in 2002,

NOTING that the following reports of the Joint Inspection Unit have been formally transmitted WMO:

- (1) Multilingualism and Access to Information: Case Study on the World Health Organization (JIU/REP/2003/4),
- (2) Multilingualism and Access to Information: Case Study of the International Civil Aviation Organization (JIU/REP/2004/1),
- (3) Review of the Headquarters Agreements Concluded by the Organizations of the United Nations System: Human Resources Issues Affecting Staff (JIU/REP/2004/2),
- (4) Administration of Justice: Harmonization of the Statutes of the United Nations Administrative Tribunal and the International Labour Organization Administrative Tribunal (JIU/REP/2004/3),
- (5) Review of Management and Administration in the Office of the United Nations High Commissioner for Refugees (JIU/REP/2004/4),
- (6) Overview of the Series of Reports on Managing for Results in the United Nations System (JIU/REP/2004/5),

- (7) Implementation of Results-based Management in the United Nations Organizations — Part I: Series on Managing for Results in the United Nations System (JIU/REP/2004/6),
- (8) Delegation on Authority and Accountability — Part II: Series on Managing for Results in the United Nations System (JIU/REP/2004/7),
- (9) Managing Performance and Contracts — Part III: Series on Managing for Results in the United Nations System (JIU/REP/2004/8),
- (10) Procurement Practices within the United Nations System (JIU/REP/2004/9),

NOTING FURTHER the annual reports on the activities of the Joint Inspection Unit for the period 1 January to 31 December 2003, **EXPRESSES** its appreciation to the Inspectors for the recommendations they have submitted in their reports;

REQUESTS the Secretary-General:

- (1) To give careful consideration to the implementation, as appropriate, of the recommendations included in the reports mentioned under **NOTING** which are pertinent to WMO, and to report to the Executive Council under the relevant agenda items;
- (2) To transmit this resolution to the Secretary-General of the United Nations for transmission to the Economic and Social Council in accordance with established procedures.

RESOLUTION 17 (EC-LVII)

WMO'S ROLE IN SEISMOLOGY AND RELATED ACTIVITIES

THE EXECUTIVE COUNCIL,

NOTING that Congress requested the Executive Council to address further the possible facilitating role of WMO regarding international coordination in the field of seismology, taking into account additional information and analysis,

NOTING FURTHER that the second World Conference on Disaster Reduction reaffirmed that an integrated, multi-hazard approach to disaster risk reduction should be factored into policies, planning and programming, and that the concept of an integrated global multi-hazard early warning framework for disaster risk reduction has been endorsed by many countries, including those attending the First and Second International Coordination Meetings for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean,

RECALLING the Global Earth Observation System of Systems (GEOSS) 10-year Implementation Plan that addressed nine societal benefit areas including reducing loss of life and property from natural and human-induced disasters and the Group on Earth Observation (GEO) Communiqué issued in Brussels on 16 February 2005, supporting a multi-hazard approach to early warning systems,

RECOGNIZING that the major advantage of an integrated global multi-hazard early warning framework is the multipurpose use of observational and telecommunication systems, which exploits routine operational facilities and services to provide accurate and timely information to decision makers and the general public, and that regular activation of multi-hazard warning systems ensures sustainability and effectiveness for response to rare events,

RECOGNIZING FURTHER that at the national level, as countries develop their national hazard alert and response mechanisms, adoption of early warning systems within an integrated global multi-hazard warning framework would save more lives and be more cost effective. Their more frequent use would help the public by repeatedly exercising their exposure to, and understanding of, the contents of warnings and specific actions they should take on each type of hazard,

NOTING that weather-, climate- and water-related hazards, being within the mandate of WMO, account for 90 per cent of loss of life from natural disasters, and that earthquake-related hazards account for a further 8 per cent,

NOTING also that nearly 27 per cent of the NMHSs around the world have some kind of seismology- and/or tsunami-related

mandate, and urging that those NMHSs with the responsibility to disseminate tsunami warnings, develop close linkages to all those other national agencies, including the disaster management agencies that can contribute to the improvement of warning distribution and community response,

NOTING FURTHER with satisfaction the contribution of WMO's GTS in the exchange of seismological observations, tsunami warnings and sea-level information through the years, the plan for upgrading the GTS and other actions that WMO has taken in collaboration with the IOC of UNESCO in the development of the Indian Ocean Tsunami Early Warning and Mitigation System following the tragic Indian Ocean tsunami on 26 December 2004,

RECOGNIZING that WMO has been well accepted by the international community to have the widest operational experience and unique expertise and facilities in an integrated global multi-hazard early warning framework involving weather-, climate- and water-related hazards,

RECOGNIZING however that there is currently no unified mechanism to coordinate effectively seismology and related activities nor the establishment of an integrated global multi-hazard early warning framework at the intergovernmental level,

REQUESTS the Secretary-General to take appropriate action jointly with other international organizations to explore possible mechanisms for an integrated global multi-hazard early warning framework at the intergovernmental level;

REQUESTS the Secretary-General to take appropriate action, when relevant, to contribute the expertise of WMO to disaster prevention and mitigation activities within the integrated multi-hazard framework, through cross-cutting approach of WMO's Natural Disaster Prevention and Mitigation Programme;

REQUESTS the Secretary-General in consultation with appropriate international organizations to prepare the necessary documentation on this subject for consideration by Fifteenth Congress.

RESOLUTION 18 (EC-LVII)

GLOBAL EARTH OBSERVATION SYSTEM OF SYSTEMS

THE EXECUTIVE COUNCIL,

NOTING the resolution from the Third Earth Observation Summit held in Brussels, Belgium on 16 February 2005 which endorsed the 10-year Implementation Plan as the basis for its further development and for establishing a Global Earth Observation System of Systems (GEOSS) to fulfil user requirements among various socio-economic benefit areas; and the extensive supporting information compiled in the GEOSS 10-year Implementation Plan Reference Document prepared by the ad hoc Group on Earth Observation (GEO),

DECIDES to endorse the implementation of GEOSS;

REQUESTS the Secretary-General to strengthen his support towards GEOSS implementation as well as to the GEO

Secretariat in its work and to ensure that WMO Programmes are actively involved in GEOSS;

REQUESTS also the Secretary-General to continue to keep WMO Members informed of GEO activities and in particular to ensure that Members receive material and information on the potential socio-economic benefits expected as a result of GEOSS;

URGES WMO Members to become GEO Members;

ENCOURAGES STRONGLY WMO Members to be actively engaged in all GEOSS processes;

REQUESTS FURTHER the Secretary-General to inform WMO Members on procedures to join GEO and provide assistance as appropriate.

RESOLUTION 19 (EC-LVII)

EXECUTIVE COUNCIL TASK TEAM TO EXPLORE AND ASSESS THE POSSIBLE CHANGES TO THE WMO CONVENTION

THE EXECUTIVE COUNCIL,

CONSIDERING the work already undertaken as well as future work to be undertaken regarding means of raising the profile of WMO including possible changes to the WMO Convention or development of a Declaration,

DECIDES to enlarge the membership from three to six and to extend the mandate of the Executive Council Task Team to Explore and Assess the Possible Changes to the WMO Convention, with the following terms of reference:

- (1) Review work already undertaken relating to the possible changes to the WMO Convention and Regulations;
- (2) Explore and assess possible changes to the WMO Convention and Regulations with a view to examining

the benefits and risks involved, including the possibility of introducing protocols;

- (3) Take into consideration pertinent comments and recommendations of regional associations;

- (4) Explore and assess the preparation of a periodical WMO Declaration;

- (5) Submit to the fifty-eight session of the Executive Council a proposal for the deliberation of Executive Council and eventual recommendation to Fifteenth Congress;

DECIDES to designate Mr W. Kusch as chairperson of the Task Team and the following five persons as members: Messrs M.A. Rabiolo, C.C. Fuller, Chow Kok Kee, M.S. Mhita and K. Nagasaka.

RESOLUTION 20 (EC-LVII)

WMO EMBLEM AND FLAG

THE EXECUTIVE COUNCIL,

CONSIDERING that the WMO emblem adopted in 1955 was changed by Fifth Congress (1967), which decided to delete all alphabetical abbreviations from the emblem, making it identical to the United Nations design with a superimposed wind-rose,

CONSIDERING FURTHER that Fifth Congress decided that the flag of the Organization should comprise the official emblem of the Organization centred on a United Nations blue background, the emblem appearing in white,

NOTING the emblems of other United Nations specialized agencies and in particular the emblem of the World Health Organization with its gold Aesculapian staff and serpent on the United Nations symbol,

NOTING FURTHER that several other United Nations specialized agencies, while basing their emblems on the emblem of the United Nations, are adopting more significant differences from the United Nations emblem, to make them more identifiable, particularly by adding above or below the emblems the abbreviated name(s) of their organizations,

RECOGNIZING that the fiftieth anniversary of WMO (so-called "golden anniversary") was held in the year 2000 and therefore, taking this into account it would be advisable to reflect the

seniority of WMO on its emblem and consequently on its flag, **RECOGNIZING FURTHER** that in view of growing requests coming from different bodies, there is a need to establish more precise guidelines on the use of the WMO name and emblem/logo, going beyond the measures for the legal protection of the name and the emblem of WMO as agreed at the tenth session (1958) of the Executive Committee in its Resolution 2 (EC-X), — Legal protection of the name and the emblem of the World Meteorological Organization,

RECOMMENDS:

- (1) That the colour of the wind-rose on its emblem as well as on its flag be changed from white to gold;
- (2) The abbreviation of the name of the Organization in all WMO official languages, each language appearing individually, at the bottom of the WMO emblem;
- (3) To maintain unchanged, based *mutatis mutandis* on the United Nations Flag Code, the Flag Code of WMO as well as the Regulations for implementing the Flag Code which have been effective since 1 January 1968;

DECIDES to submit the proposal to Fifteenth Congress for decision.

RESOLUTION 21 (EC-LVII)

EXECUTIVE COUNCIL WORKING GROUP ON THE EVOLUTION OF NATIONAL METEOROLOGICAL AND HYDROLOGICAL SERVICES, AND WMO

THE EXECUTIVE COUNCIL,

NOTING:

- (1) Resolution 5 (EC-LV) Executive Council Advisory Group on the Role and Operation of National Meteorological and Hydrological Services,
- (2) Resolution 7 (EC-LVI) Executive Council Action Group for an Enhanced WMO,

DECIDES:

- (1) To merge the Executive Council Advisory Group on the Role and Operation of National Meteorological and Hydrological Services and the Executive Council Action Group for an Enhanced WMO into a new Executive Council Working Group on the Evolution of NMHS and WMO with the following terms of reference:

- (a) To keep the subject of the evolution of WMO and NMHSs under review and provide the Council with appropriate recommendations, taking into account the work carried out so far by the Executive Council Advisory Group on the Role and Operation of NMHSs and the Executive Council Action Group for an Enhanced WMO, whose responsibilities are now assumed by this Working Group;
- (b) To develop relevant guidance material to help in rendering WMO and NMHSs more responsive, proactive and relevant, including through change in the mode of operation and appropriate integration within WMO;

- (c) To encourage actively and facilitate the development of cooperation arrangement and partnerships among all relevant stakeholders;
- (d) To take into account evolving needs, as well as recent trends and developments relating to WMO and NMHSs;
- (e) To coordinate with other relevant bodies on related work and activities;
- (f) To progress work, particularly in the following areas:
 - (i) The Statement on the role and operation of NMHSs;
 - (ii) The questionnaire on the role and operation of NMHSs;
 - (iii) Review of the functioning and linkages of WMO constituent bodies;
 - (iv) Review number, composition, purpose, and mode of operation of the Executive Council subsidiary bodies and other related bodies like including the Bureau and the Financial Advisory Committee;
- (g) To establish special task teams to address the above-mentioned specific areas, as appropriate, reporting to, and coordinated by, the chairperson of the Working Group;
- (h) To report to the fifty-eighth session of the Executive Council with recommendations and

- proposals, including those that may need to be submitted for consideration of Fifteenth Congress;
- (2) That the following shall serve as members of the Group:
- A.I. Bedritsky – President (chairperson)
 J.-P. Beysson
 A. Divino Moura
 M.D. Everell
 C. Fuller
 A.M.H. Isa
 D.K. Keuerleber-Burk
 G. Love
 J R. Lumsden
 M. Mhita
 N.F. Ouattara
 J. Mitchell
 M.S. Saadallah

(3) The presidents of relevant technical commissions would be invited as experts by the chairperson, as appropriate;
DESIGNATES Mr A.I. Bedritsky as chairperson of the Working Group;

REQUESTS the Secretary-General:

- (1) To take the relevant actions to support the activities of the Working Group;
- (2) To take appropriate actions on the related issues and to keep Members and other pertinent international organizations informed on relevant developments associated with the evolution of NMHSs and WMO.

NOTE: This resolution replaces Resolutions 5 (EC-LV) and 7 (EC-LVI), which are no longer in force.

RESOLUTION 22 (EC-LVII)

REVIEW OF PREVIOUS RESOLUTIONS OF THE EXECUTIVE COUNCIL

THE EXECUTIVE COUNCIL,

NOTING:

- (1) General Regulation 155(9), concerning the review of the Executive Council resolutions,
- (2) Rule 27 of the Rules of Procedure of the Executive Council on the same subject,

HAVING EXAMINED its previous resolutions still in force,

DECIDES:

- (1) To keep in force the following resolutions:

EC-X	2
EC-XII	6, 30
EC-XIX	9
EC-XXI	15
EC-XXV	8,12
EC-XXXIV	13
EC-XXXV	18, 21
EC-XXXVI	6
EC-XXXVII	13
EC-XXXIX	7, 17, 24
EC-XL	4
EC-XLI	6

EC-XLII	19
EC-XLIV	14 (except paragraphes under DECIDES), 15, 20
EC-XLV	7, 13, 16
EC-XLVI	12, 19
EC-XLVIII	3, 4, 12
EC-L	12
EC-LI	5, 10
EC-LII	3
EC-LIV	2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16
EC-LV	1, 2, 3, 4, 6, 7, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21
EC-LVI	2, 3, 4, 5, 6, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22

- (2) Not to keep in force the other resolutions adopted before its fifty-seventh session.

NOTE: This resolution replaces Resolution 23 (EC-LVI), which is no longer in force.

ANNEXES

ANNEX I

Annex to agenda item 2.4 of the general summary

RECOMMENDATIONS OF THE FINANCIAL ADVISORY COMMITTEE

(a) Financial matters (including the report of the External Auditor)

Consideration of the accounts for 2004, including the Report of the External Auditor

Recommendation 1:

That the Executive Council:

- 1.1 Adopt draft Resolution 4.1/x (EC-LVII), as contained in EC-LVII/Doc. 4.1(2), REV, Appendix B;
- 1.2 Approve that the financial statements are audited on an annual basis starting 2005;
- 1.3 Approve the simplification of the financial arrangements by transferring support funds to the General Fund.

(b) Financial situation of the Organization

Statement showing status of contributions as at 15 June 2005 and financial data for the biennium 2004-2005

Recommendation 2:

That the Executive Council urge Members in arrears of contributions to settle their dues as early as possible so that the approved Programmes of WMO may be implemented in the time frame and at the level foreseen in the plans.

(c) Consideration of the Secretary-General's programme and budget proposals for the biennium 2006-2007

Programme and Budget for the biennium 2006-2007

Recommendation 3:

That the Executive Council:

- 3.1 Approve the budget of CHF 126 630 200 for the biennium 2006-2007;
- 3.2 Adopt draft Resolution 5/1, contained in EC-LVII/Doc. 5(1) by including, when authorizing the Secretary-General under point (1), reference to Financial Regulation 7.3 and under point (2), reference to Financial Regulation 4.2.

(d) Consideration of the Secretary-General's proposals for supplementary estimates for high priority activities for the biennium 2006-2007 to be funded from cash surplus arising from the thirteenth financial period.

High priority activities for the biennium 2006-2007

Recommendation 4:

That the Executive Council:

- 4.1 Approve allocation of CHF 5 477 000 from the surplus of the thirteenth financial period for high priority activities for 2006-2007;

- 4.2 Adopt draft Resolution 5/2, as contained in EC-LVII/Doc. 5(2).

(e) Contribution matters

Recommendation 5:

That the Executive Council request the Secretary-General to analyse further mechanisms to encourage Members to settle their long outstanding contribution and to report to the fifty-eighth session of the Executive Council.

(f) Strengthening of Internal Oversight

Recommendation 6:

That the Executive Council:

- 6.1 Request the Secretary-General to strengthen the internal audit services on an urgent basis within the budget envelope proposed for the biennium 2006-2007;
- 6.2 Request the Secretary-General to conduct a needs assessment of the audit services and to examine the options of outsourcing some or all of the internal audit services and report this to the fifty-eight session of the Executive Council.

(g) Preliminary discussion on the programme and budget for the fifteenth financial period

Recommendation 7:

That the Executive Council:

- 7.1 Take note of the proposal of the Secretary-General to submit a budget for the fifteenth financial period on the basis of zero real growth in the amount of CHF 262.0 million;
- 7.2 Request the Secretary-General to present programme and budget options for the fifteenth financial period based on zero nominal growth and zero real growth;
- 7.3 Request the Secretary-General to present a result-based programme performance report to facilitate comprehensive consideration of the programme and budget options for the fifteenth financial period;
- 7.4 Request the Secretary-General to consolidate further the budgetary presentation by including, in particular, programme support income, interest income, income from sales of publications and from rental of facilities and to propose the necessary budget adjustment in the context of the proposed programme and budget for the fifteenth financial period (2008-2011).

ANNEX II

Annex to paragraph 3.1.1.5(c)(vii) of the general summary

ANTICIPATED BENEFITS FROM LOCATION-SPECIFIC NWP PRODUCTS

1. The National Meteorological and Hydrological Services (NMHSs) of developing countries, especially least developed countries (LDCs), while making great efforts to contribute surface and upper-air observations, were unable to benefit fully from the latest advances in numerical weather prediction (NWP) owing to the substantial resources required for individual Members to operate NWP models and/or to acquire and process NWP output data. Furthermore, to sustain the development and maintenance of ground-based observing systems, NMHSs of developing countries need to demonstrate to their governments or other funding agencies the tangible benefits arising from the operation of the observing stations within the global and regional observation networks.

2. At the same time, NWP had matured to the point where major NWP centres could provide meaningful NWP forecast products for individual locations up to several days ahead and that such products could be made accessible to developing countries via the Internet using a password-protected method. Therefore, the availability of such location-specific NWP

products for Global Observing System (GOS) station sites to NMHSs of developing countries could substantially improve their forecasting services and warning operations, which would help enhance their visibility. It would also serve as an incentive to developing countries to maintain existing observing stations or even set up new observing stations. This would, in turn, ensure that major NWP centres get an adequate supply of observation data for input into their models.

3. The Council noted that the Council of the European Centre for Medium-range Weather Forecasts (ECMWF) has already approved the provision of location-specific ensemble prediction system products for selected locations through a password-protected Website to WMO Members who have requested access.

4. The Council also recognized that within the broad range of goals and objectives of THORPEX, guidance could be provided to developing countries in the use of new NWP products.

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ANNEX III

Annex to paragraph 3.7.3 of the general summary

VCP(F) STATUS AND PROPOSAL FOR ALLOCATIONS IN 2005

(United States dollars)

	Currently active projects and new proposed projects	Allocations approved by EC 1968-2003	Expenditure in previous years 1968-2003	Balance (01/01/04)	Allocations and adjustment approved by EC-LVI for 2005	Balance after 2004 allocations	Expenditure* and obligations 2004 (excluding admin. costs)	Balance (31/12/04)	Allocations and adjustments approved by EC-LVII for 2005	Balance after 2005 allocations
1	VCP spares/shipping of equipment in good working condition	593 750	553 772	39 978	-10 000	29 978	4 876	25 102		25 102
2	Expert services	1 339 300	1 331 817	7 483	20 000	27 483	15 270	12 213	20 000	32 213
3	Short-term fellowships	2 617 200	2 615 729	1 471	90 000	91 471	45 264	46 207	60 000	106 207
	3.1 Group training activities	40 000	18 015	21 985	10 000	31 985	0	31 985		31 985
4	TCDC activities	498 285	492 256	6 029	20 000	26 029	14 632	11 397	20 000	31 397
5	Improvement of GTS General	62 841	20 769	42 072		42 072	34	42 038		42 038
	5.1 Improvement of GTS Caribbean	109 020	89 961	19 059		19 059		19 059		19 059
	5.2 Improvement of GTS Asia/Pacific	149 900	120 002	29 898		29 898		29 898		29 898
	5.3 Improvement of GTS Africa	649 995	617 750	32 245		32 245	11 693	20 552	10 000	30 552
	5.4 Improvement of GTS South America	357 900	340 232	17 668		17 668	2 982	14 686		14 686
	5.5 Improvement of GTS South-East RA VI	196 750	185 546	11 204	10 000	21 204		21 204	10 000	31 204
	5.6 Improvement of GTS Central and Eastern Europe/Newly Independent States (NIS)	61 213	38 404	22 809		22 809		22 809		22 809
6	Improvement of observing subsystem of GOS and GCOS general	524 729	501 932	22 797	40 000	62 797	44 581	18 216	40 000	58 216
	6.1 Upper-air stations in Central and Eastern Europe/Newly Independent States (NIS)	422 000	404 986	17 014	20 000	37 014		37 014		37 014
7	Improvement of GDPS	140 000	118 049	21 951		21 951	30	21 921		21 921
8	Agricultural meteorology activities	65 000	54 063	10 937		10 937		10 937		10 937
9	Support to CDMS and climatological activities	143 500	121 194	22 306	10 000	32 306	22 082	10 224	20 000	30 224
10	Mitigation of natural disasters	80 000	50 844	29 156	-10 000	19 156	1 587	17 569		17 569
	10.1 Emergency disaster assistance	80 000	42 130	37 870		37 870	26 182	11 688	10 000	21 688
11	ASMC	81 000	67 569	13 431	-5 000	8 431		8 431		8 431
12	ACMAD	210 000	209 519	481	20 000	20 481	116	20 365		20 365
13	EAMAC	70 000	61 616	8 384		8 384		8 384	5 000	13 384
14	Operational hydrology activities	175 000	159 126	15 874	10 000	25 874	20 663	5 211	15 000	20 211
15	Improvement of satellite reception	20 000	10 435	9 565	10 000	19 565		19 565		19 565
16	Internet capabilities	55 000	19 161	35 839	5 000	40 839	19 467	21 372	10 000	31 372
17	Year 2000 problem (closed)	34 439	34 439	0		0		0		0
18	Reserve	5 893	4 764	1 129		1 129		1 129		1 129
	Transfer to LDC Trust Fund as agreed by Cg-XIV	20 000	20 000	0		0		0		0
	TOTAL	8 802 715	8 304 080	498 635	240 000	738 635	229 459	509 176	220 000	729 176

* Provisional, interim figures which will be audited with the 2004-2005 biennium accounts. The detailed information on the use of the VCP(F) for the biennium 2004-2005 will be submitted to the fifty-eighth session of the Executive Council.

ANNEX IV

Annex to paragraph 3.9.5 of the general summary

NATURAL DISASTER PREVENTION AND MITIGATION PROGRAMME REVISED IMPLEMENTATION PLAN 2005-2007**Background**

1. The Fourteenth World Meteorological Congress in its Resolution 29 established WMO's Natural Disaster Prevention and Mitigation (DPM) Programme to develop an organization-wide coordinating framework to enhance further WMO's contributions to the natural disaster risk reduction activities at the international, regional and national levels. The DPM strategy enhances the way WMO and the National Meteorological and Hydrological Services (NMHSs) can contribute significantly through a strong and sustainable multi-hazard approach for disaster reduction around the world.

2. The World Conference on Disaster Reduction (WCDR), held in January 2005, in Kobe, Japan, recognized the importance of the principles of the WMO's DPM strategic goals with key statements throughout two outcome documents issued by the meeting — the Hyogo Declaration and the Hyogo Framework for Action 2005-2015 (HFA): Building the resilience of nations and communities to disasters.

3. The five high priority areas of HFA from 2005-2015 include: (1) ensure that disaster risk reduction (DRR) is a national and a local priority with a strong institutional basis for implementation; (2) identify, assess and monitor disaster risks and enhance early warnings; (3) use knowledge, innovation and education to build a culture of safety and resilience at all levels; (4) reduce the underlying risk factors; and (5) strengthen disaster preparedness for effective response at all levels. WMO and NMHSs are in an excellent position to take a leadership role at the international to national levels, respectively, particularly in the second high priority action area, while also contributing to the other four areas.

4. The tragic 26 December 2004 Asian tsunami disaster's impact and devastation reached an exceptional level in terms of the scale of human loss, associated damage, number of countries affected and related response and recovery efforts. Some 27 per cent NMHSs have a mandate for services related to tsunamis or seismic activity, and are designated "national tsunami centres". The First and Second International Coordination Meetings for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean (IOTWS) were held in Paris, and in Mauritius, respectively. The outcome documents of these meetings acknowledged that WMO could contribute significantly through its GTS and technical and operational capabilities and experiences for multi-hazard early warnings in support of the NMHSs.

5. The intergovernmental Group on Earth Observations (GEO), in the Global Earth Observation System of Systems 10-year Implementation Plan, stipulated that disasters are one of the nine high priority societal areas that will be addressed as part of GEOSS.

6. The first Meeting of the Executive Council Advisory Group on Natural Disaster Prevention and Mitigation (EC-AGDPM), reviewed WMO's strategic goals in DPM, reviewed the latest developments including, WCDR, GEO, the

WMO's DPM Implementation Plan approved by the fifty-sixth session of the Executive Council, activities related to the Indian Ocean Tsunami Early Warning and Mitigation System (IOTEWS), issues concerning the regional needs and gaps related to WMO core capabilities relevant to disaster reduction, as well as the role of, and challenges faced by, the NMHSs around the world. The Meeting provided a series of recommendations and requested the DPM Programme office to revise the Implementation Plan already approved by the fifty-sixth session of the Executive Council, to incorporate these recommendations.

7. The Sixth WMO Long-term Plan (6LTP), approved during the Fourteenth World Meteorological Congress contains nine WMO strategies. Through the DPM strategic goals and the Revised Implementation Plan, the DPM Programme will serve as a vehicle for making essential and direct input to the implementation of the following 6LTP WMO strategies:

6LTP Strategy 1: To enable the delivery of increasingly accurate and reliable warnings of severe events related to weather, water, climate and the related natural environment throughout the world, and ensure that they are able to reach their target audience (individuals, emergency services, decision makers) in a timely and useful manner.

6LTP Strategy 4: To inform and educate the public, governments and other interested parties about the socio-economic benefits of understanding the weather, water, climate and related environment.

6LTP Strategy 7: To enhance the capabilities of NMHSs to deliver services, and improve cooperation and collaboration between them.

6LTP Strategy 8: To work more effectively with international partners, other relevant organizations, academia, the media and the private sector.

6LTP Strategy 9: To improve the effectiveness, efficiency and flexibility of the structure and working mechanisms and practices of WMO, to enable it to respond more rapidly to the changing needs of society and to the new opportunities provided by technological advances.

DPM Vision

8. The vision for the Natural Disaster Prevention and Mitigation (DPM) Programme is that WMO and NMHSs will be recognized, now and in the future, internationally and nationally respectively, as the single, authoritative source for monitoring and detecting multi-hazard early warnings, as well as other information and expert advice on weather-, climate- and water-related hazards to save more lives, and reduce the economic impacts and environmental damage caused by related disasters. The information and expert advice are in areas such as providing hydrometeorological data, hazard mapping and input into risk assessment, technical input into decision making processes such as development planning and emergency preparedness planning. Furthermore, NMHSs will be

recognized as a critical component of the national capacity for disaster risk reduction.

DPM Strategy

9. The goals of the WMO DPM strategy include:

DPM Goal 1: Promote greater emphasis on proactive strategies for prevention and preparedness on the basis of a multi-hazard framework.

DPM Goal 2: Ensure that WMO's core technical and scientific capabilities, particularly related to data, input into hydrometeorological hazard mapping and risk assessment and multi-hazard early warning systems, are integrated optimally in the strategy and activities for disaster risk reduction at the international, regional and national levels.

DPM Goal 3: Promote the role of National Meteorological and Hydrological Services as a critical component of the national risk reduction, particularly within developing countries.

DPM Goal 4: Raise awareness to the magnitude of cost-benefits from investments in natural disaster prevention, particularly multi-hazard early warning systems.

DPM Goal 5: Develop and strengthen strategic partnerships with international, regional and national organizations and the private sector users of hydro-meteorological information.

DPM Goal 6: Enhance the visibility of WMO and NMHSs.

Components of the WMO DPM Implementation Plan

10. To achieve the DPM goals of WMO, the DPM implementation Plan is composed of the following components that will be carried out simultaneously:

- (a) Facilitate a review of DPM capabilities and existing gaps in WMO' Regions followed by the establishment of concrete regional and subregional projects;
- (b) Facilitate targeted partnerships;
- (c) Incorporate a user-driven approach;
- (d) Enhance coordination within the WMO network to provide integrated services;
- (e) Document best practices;
- (f) Establish appropriate communication mechanisms;
- (g) Develop a proactive advocacy plan;
- (h) Develop a consistent resource mobilization plan;
- (i) Develop a systematic global catalogue of weather-, climate-, and water-related hazards and their impacts.

11. The DPM Programme Office will collaborate with all relevant elements of the WMO network, including Programmes, technical commissions, regional associations, Regional Specialized Meteorological Centres (RSMCs), and NMHSs to implement the components of the DPM Implementation Plan.

12. Facilitate a review of DPM capabilities and existing gaps in WMO' Regions followed by the establishment of concrete cross-cutting regional projects, including resource mobilization in support of these activities — Projects will be built on synergies among relevant WMO Programmes to address systematically and in a prioritized fashion the regional, sub-regional and national (NMHSs) gaps and needs so that WMO's core scientific and technical capabilities are enhanced and made available to all countries, particularly those with limited resources. The following tasks will be accomplished:

13. Identify current capabilities as well as major gaps and needs within the six WMO Regions. This will be done through surveys and other information sharing methods in a systematic and consistent manner. A framework will be defined on what needs to be assessed and through which channels. It will build on the information already assembled through the technical commissions, the regional associations (RAs) and WMO Programmes. The systematic analysis process will provide an opportunity for the Members to present their priority rankings of the gaps and needs.

14. The analysis will include review of core capabilities and needs related to observing, detecting, modelling and forecasting and linkage of hydrology and meteorology, end-to-end early warnings, tools and technical expertise for hazard mapping and input into risk assessment, telecommunication, capacity-building and technology transfer, education and public outreach, linkages of the NMHSs with the national risk management and emergency structures, and their regional linkages.

15. Analysis will be conducted through a variety of mechanisms, utilizing the National DPM Focal Points, RAs, the Regional and Technical Cooperation Programme with support of the members of the E-AGDPM.

16. The DPM Programme Office will carry out mapping of the activities and plans of the major Programmes related to DPM. This activity and the associated routine updating is needed to be able to coordinate DPM activities effectively.

17. The outcome of "the regional capabilities, needs and gaps analysis" as well as "the mapping of the Programmes' activities," will be compiled, reviewed, and built on, with the goal to identify prioritized, concrete, sustainable projects, which can be built on the activities of WMO Programmes. These efforts will be coordinated with WMO's activities related to Least Developed Countries (LDCs) and Small Island Developing States (SIDS) to ensure that relevant projects are developed to address the specific needs of LDCs and SIDS. The process will identify a systematic phased approach according to the priorities established within each WMO Region.

18. The projects will be implemented through NMHSs and RSMCs, with the coordinated support of the relevant WMO Programmes and technical commissions.

19. Through ongoing monitoring of the progress, evaluations will be performed routinely on the results of the projects to ensure goals are being met and the expected results are achieved. The DPM Steering Committee will recommend adjustments in the projects as well as in the activities of related Programmes.

20. The Secretariat, in collaboration with different components of the WMO network, will identify and help establish the most effective mechanisms for cross-cutting DPM activities.

21. Timeline: the significant majority of the analysis of regional gaps and needs and Programme mapping should be carried out by the fifty-eighth session of the Executive Council. By Fifteenth Congress, DPM will have developed a prioritized regional plan for coordinated projects. However, in the meantime, should any projects in the Regions require immediate attention, DPM in collaboration with the Programmes will facilitate urgent response.

22. The results over time will be the enhanced capabilities of the Members, realized through their NMHSs, to participate effectively and proactively within their countries on disaster processes; and, the enhanced body of information that can be used in the

other components of the Implementation Plan. These directly link to DPM Goals 2, 3, and 6; and 6LTP Strategy 1 and 7.

23. Along with recommending the above systematic process for establishing concrete cross-cutting regional projects, the EC- AGDPM also recommended several projects to be initiated immediately. They include:

- (a) Build a catalogue of weather-, water- and climate-related natural hazards around the world. It will characterize, rank, and map hazards on the basis of risk and probability of occurrence;
- (b) Develop and publish an annual yearbook of hazards linking the annual WMO *Statement on the Status of the Global Climate* with the article on socio-economic effects of hydrometeorology annually published in the WMO *Bulletin*;
- (c) WMO will proactively follow up with its contributions to the IOTEWS, particularly within a multi-hazard approach, involving the following:
 - (i) Upgrading the GTS to incorporate exchange of information and warnings of tsunamis — the GTS is to be the primary mechanism for dissemination of tsunami warnings in the interim period [12-18 months] and longer-term;
 - (ii) Enhancing early warning dissemination capabilities of NMHSs within a multi-hazard approach including tsunamis, as well as development of education and public outreach programmes of the NMHSs in the region;
 - (iii) Facilitate awareness raising workshops in the Indian Ocean region on space technologies and develop a consolidated set of requirements for coordinated use of space in supporting multi-hazard early warnings including tsunamis;
- (d) Promote the multi-hazard approach to tsunamis early warning including tropical storms and storm surges, and take a leading role in implementing that approach;
- (e) As one of the high priority items, the PWS Programme, in close collaboration with the DPM Programme Office, other relevant WMO Programmes and in partnership with other key organizations, is to develop a consistent DPM-related Educational and Public Outreach Programmes for the NMHSs, and their targeted stakeholders (i.e., general public, educational institutions particularly at elementary and secondary level, and the disaster management community).

24. Facilitate targeted partnerships — The DPM Programme Office will evaluate and establish international and regional partnerships according to the complementary activities of organizations that can add value to the implementation of WMO's DPM goals. The Secretariat will assist the NMHSs in performing similar evaluations and enhancements at the national level to establish or enhance their partnerships at the national level.

25. The DPM Programme Office will establish criteria for evaluating potential partners, based on an understanding of their specific activities, plans and goals in disaster reduction, their connections to, and experience with, disaster risk

management communities, and their complementary value-added activities.

26. The DPM Programme Office will evaluate the existing major WMO partnerships that are covered by Memorandums of Understanding or other agreements.

27. The DPM Programme Office will also identify potential partner organizations at the regional and international levels. This will be carried out through appropriate mechanisms (e.g., meetings and working groups under the activities of the ISDR Inter-agency Task Force, bilateral and multilateral meetings with potential partners, participation in conferences and workshops. The DPM Programme Office will continue its systematic evaluation process and has made contacts with UNOCHA and its initiative for a Global Disaster Alert System (GDAS), the ProVention Consortium, the Vulnerability and Adaptation Resource Group (VARG), the Asian Disaster Reduction Centre (ADRC), the Asian Disaster Prevention Centre (ADPC), the International Federation of the Red Cross and Red Crescent societies (IFRC) and the World Bank. Other key organizations should be identified and evaluated.

28. The DPM Programme Office together with the RCD Programme will assist presidents of RAs in identifying and evaluating the regional entities such as the economic groupings and regional development banks and those organizations that work with the disaster management community, to identify potential regional partners, and to determine prioritized areas for regional partnerships.

29. The DPM Programme Office will develop a database of international and regional partners and their activities in DPM as relevant to WMO, and will build/strengthen links to WMO projects and initiatives. It will present these to the appropriate WMO governing bodies to determine the best mechanisms for the WMO network to enter into the target partnerships.

30. For partnerships at the national level, the DPM Programme Office will assist the Members by providing support materials (such as best practices) to NMHSs to help them in identifying, evaluating and establishing partnerships with their national entities.

31. The outcome is a more informed, prioritized and targeted approach to partnerships at the international and regional levels so that resources are more effectively utilized, activities more effectively coordinated, and results are achieved more quickly and thoroughly. The activities in this component directly link to DPM Goals 5 and 6 and to 6LTP Strategy 8.

32. Incorporate a user-driven approach — The user-driven approach identifies the needs of target users (e.g., the disaster risk reduction community, the general public, media, and decision makers in various governmental and economic sectors), to ensure that warnings, information and services provided by NMHSs are aligned with users' needs and can be effectively incorporated in the decision-making process.

33. The DPM Programme Office will coordinate the evaluation and periodic re-evaluation of the scientific and technological informational needs and requirements of different segments of users. The objective is to ensure that WMO information has content and employs formats that can be integrated effectively in decision processes for disaster risk reduction.

34. Effective mechanisms to incorporate users' input need to be considered and utilized as part of WMO DPM activities in collaboration with other WMO Programmes and partners. One

possibility involves partnership with international and regional agencies that have strong linkage to the user community (i.e., authorities, economic development entities, emergency and disaster risk management community, private sector users, etc.) such as ADRC and ADPC in Region II, industry associations, etc. Other mechanisms, such as user workshops of WMO Programmes, and self-funded regional stakeholder advisory panels will be further explored.

35. The user input on needs and requirements will be incorporated in determining the concrete regional projects, and will influence the modifications and adjustments made in the Programmes' plans and activities related to DPM, through their operational, research, and educational activities.

36. DPM Programme Office will provide materials to assist NMHS and RSMCs to identify the needs and requirements of their users.

37. The DPM Programme Office will initiate evaluation of mechanisms that engage the users, as an integral part of the regional gap assessments and the evaluation of the partners.

38. The outcome is guidelines for enhanced products and services that can be readily integrated in the decision processes of targeted users. The activities in this component directly link to DPM Goals 1 and 4 and 6LTP Strategies 1 and 9.

39. Enhance coordination within the WMO network to provide integrated services — Coordination within the WMO network is essential for the successful achievement of WMO's DPM goals. Coordination of the activities of the entire WMO network under a consistent and systematic framework could enhance the overall contributions of the respective bodies and reduce redundancies. Coordination in this context goes beyond sharing information. Instead, it means that the WMO DPM strategy influences the long-term plans and activities of the entire WMO network toward the achievement of common DPM goals. The ultimate goal is the provision of integrated services that build synergistically from each programme, focus uniformly on the disaster community's needs and requirements, and reflect in enhanced deliverables of the NMHSs.

40. Coordination of all DPM-relevant WMO activities would involve WMO's technical and scientific Programmes, technical commissions, RAs, RSMCs, NMHSs and the DPM National Focal Points.

41. Steering Committee on Disaster Reduction — appointed within the Secretariat by the WMO Secretary-General — oversees the DPM cross-cutting activities of the Programmes. It forms cross-cutting project-oriented task teams based on representation from relevant major WMO scientific and technical Programmes to address specific issues, which terminate upon completion of the task. Examples include the WCDR Task Force, the ISDR Inter-agency Task Force, the Tsunami Task Force, etc.

42. National DPM Focal Points are designated by Members to work with the DPM Programme Office, to help coordinate the DPM-related activities, distribute programme information at their levels, and to represent their countries needs and priorities.

43. DPM Programme office with guidance from the Steering Committee and the EC-AGDPM will work closely with presidents of RAs and technical commissions to explore and evaluate mechanisms for effective information sharing and project implementation related to DPM, utilizing existing structures, within an evolutionary process, to ensure that more appropriate mechanisms are utilized over time.

44. The coordination process will be evaluated by the DPM Steering Committee routinely and will be considered by the EC-AGDPM and appropriate mechanisms building on the current WMO infrastructure will be proposed for sustained DPM activities.

45. The DPM Programme Office aims to have explored some mechanisms to coordinate the DPM-related activities. By Fifteenth Congress, the DPM Programme Office will report on how the mechanisms were used.

46. Outcome is the integrated, consistent implementation of the DPM Programme, through the mechanisms that facilitate coordinated activities of the Programmes, technical commissions, RAs, RSMCs, and NMHSs. The activities in this component are directly link to DPM Goal 2 and 6LTP Strategy 9.

47. Document best practices — The objective of this component is to raise awareness among decision makers of the benefits of using weather-, climate- and water-related information in taking the actions associated with disaster risk assessment and reduction, prevention, preparedness, and response.

48. Best practices consist of regional and national activities, where the appropriate linkages between the NMHSs and the risk management community are effective, and the activities achieve reductions in the loss of life, economic losses, and environmental damage. Successful cooperation between meteorological and hydrological activities should be identified and promoted.

49. Following the advice of the EC-AGDPM, the DPM Programme Office will facilitate through the WMO network and other key partners the development of criteria to assess best practices, and will assist in documenting regional and national best practices.

50. The DPM Programme Office will collaborate with the Strategic Planning Office to link the knowledge from the best practices with cost benefit analysis studies.

51. The best practices will be shared through a variety of mechanisms.

52. The DPM Programme Office aims to have established the criteria for evaluating best practices, and identified a set by the fifty-eighth session of the Executive Council. By Fifteenth Congress, the DPM Programme Office will have assembled and shared (via various mechanisms) initial sets of best practices.

53. The outcome is the elevated awareness of the benefits of using weather-, climate- and water-related information for disaster risk reduction. In addition, WMO will make use of the results of this activity in preparation for a conference that WMO will sponsor tentatively in 2007 on the benefits of hydro-meteorological services with a focus on Disaster Prevention. The activities in this component directly link to DPM Goals 3 and 4 and, 6LTP strategies 1, 4 and 7.

54. Establish appropriate communications mechanisms — The objective is to build an effective and forward-looking communication system that supports and enhances cooperation, coordination, and information transfer. This communication system must use the latest proven technological advances to enhance communication efficiency and promote IT capacity-building, but also be accessible to less developed communication systems.

55. The DPM Programme Office will continue building on the DPM Website to ensure that the WMO activities and events can be easily tracked and understood. Regular updating of the Website is critical.

56. The DPM Programme Office will facilitate addition of effective knowledge management mechanisms to the DPM Website.

57. Portals for information viewing and for the sharing of relevant DPM activities, tools, etc. within the WMO network, with partners and with the general public.

58. DPM forums that will facilitate communication, collaboration and enhance a global view of WMO network activities related to DPM.

59. The DPM Programme Office will seek partnerships to enhance disaster databases such as the Center for Research on the Epidemiology of Disasters (CREED) in Belgium, by adding user-friendly analysis tools, as well as interfaces with key disaster databases, to make information more readily available to WMO and the disaster preparedness community. The assistance of Members will be sought.

60. On a more long-term basis, the DPM Programme Office will coordinate with the relevant Departments, and the NMHSs and other communication experts to: (i) define current communication practices and IT infrastructure in relation to the said objective; (ii) identify future requirements to accomplish the objective; and (iii) develop/establish the communication infrastructure/processes.

61. The outcome is the elevated sharing of information needed in developing and putting into practice the coordinated DPM Programme. The activities in this component directly link to DPM Goals 2 and 5 and 6LTP Strategies 1, 7 and 9.

62. Develop a proactive advocacy plan — A proactive advocacy plan is critical to enhancing WMO and NMHSs visibility, having a leading role in the disaster risk reduction, at the international, regional and national levels, and promoting the culture of prevention.

63. Under the guidance of the Steering Committee on Disaster Reduction, in collaboration with the Communications and Affairs Office, the RCD Programme and the WMO network, the DPM Programme Office will develop a proactive advocacy plan, with the following considerations:

- (a) Ensure that information "i.e., consistent key messages" is provided within a consistent strategy, in contexts that address the needs of the audience: ministerial, disaster community, general public, NMHSs, etc;
- (b) Facilitate the flow of information from the NMHSs and RSMCs to the national and regional public media, by providing support advocacy materials to the NMHSs and RSMCs;
- (c) The Secretariat will provide material to support the Members' activities to raise awareness at the ministerial as well as general public levels on the culture of prevention, the relation between preventive risk management strategies and economic development and benefits of proactive preventive measures based on hydrometeorology. The materials will promote the potential benefits of WMO scientific and technical capabilities as relevant to all stages of a proactive risk management strategy, as an investment, with particular focus on NMHS services at the national level;

(d) Best practices will be critical materials to be used in the advocacy plan.

64. The plan will target:

(a) Consistent organization-wide proactive advocacy through conferences, intergovernmental meetings, workshops, expert meetings, speeches, statements and interviews, scientific and policy journals, and brochures and technical publications, utilizing effective information kits, online materials and dynamic presentations, etc.;

(b) Strong media partnerships including jointly sponsored events;

(c) Organization-wide training to ensure that WMO representatives all understand and can clearly relay the "key messages" consistently;

(d) Coordination of technical aspects, such as enhancing and focusing the content and displays of the general WMO Website and those of the Departments.

65. The following opportunities and venues will be immediately considered for advocacy:

(a) Promotional materials and newsletters;

(b) Utilization of the DPM Website;

(c) Participation in the preparation of the Regional Conference on Disaster Reduction in Asia to be held in China in 2005 (to be confirmed);

(d) Third International Early Warning Conference, sponsored by Germany in March 2006;

(e) World Meteorological Day 2006 (dedicated to disaster prevention and mitigation);

(f) Advocacy of the multi-hazard approach through the United Nations Special Envoy for Disaster Reduction;

(g) The outcome is to enhance visibility and role of NMHSs and WMO. The activities in outcome and linkage to the WMO 6LTP and DPM goals: this component directly links to DPM Goals 3, 4 and particularly 6, and 6LTP Strategy 2.

66. Resource mobilization — While some resources are dedicated to the DPM-related projects through the programme budgets, effective implementation of the regional cross-cutting projects of WMO, would require extrabudgetary funds to be sought from voluntary contributions, through partnerships with organizations, etc.

67. A consistent resource mobilization plan should be developed that is aligned with the cross-cutting projects of WMO at the international, regional and subregional levels and also targeted at specific projects for groups or individual Members. Some part of the funding of these crosscutting projects will be through more coordinated designation of the regular budgets of relevant Programmes, and the other part through the DPM Programme Office's resource mobilization activities (in collaboration with the relevant programmes) for raising extrabudgetary funds. The Secretariat will conduct resource mobilization at the international and regional levels.

68. The DPM Programme Office in collaboration with the RCD Programme will develop a plan for consistent fund-raising through partner, regional development banks, bilateral donors, and the private sector.

69. WMO will establish a trust fund to support its disaster prevention and mitigation activities.

Develop a systematic global catalogue of weather-, climate-, and water-related hazards and their impacts

70. The DPM Programme Office, together with the Programmes and the technical commissions, will prepare methodologies for the development of statistical information on the hazardous conditions related to weather, climate, and water, their impacts as well as methodology for quantification of benefits that are realized through preventive actions supported by hydrometeorological products and services, provided through the NMHSs.

71. Based on these methodologies, the DPM Programme Office will facilitate mechanism to enable the NMHSs to provide on a regular basis to the Secretariat statistical information about the hazardous events related to weather, climate, and water, including damage information and benefits gained from preventive actions utilizing hydrometeorological products and services.

72. The WMO Secretariat, through special annual publications will share this information with the public and the United Nations system.

73. The WMO Secretariat will utilize this information to improve on a regular basis the study of interesting economic and social benefits analysis, which result from utilization of hydrometeorological services of the NMHSs, including forecasts, warnings and other information related to weather-, climate-, and water-related events.

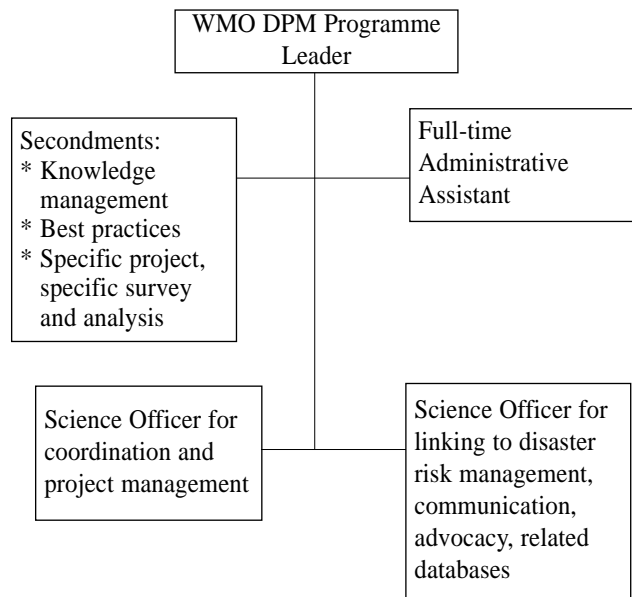
74. In partnership with relevant agencies, develop regional atlas of hydrometeorological hazards and their vulnerability for six WMO Regions.

WMO Disaster Prevention and Mitigation Programme Office

75. In order to ensure the successful coordination of the activities defined within this Implementation Plan, an appropriately sized and skilled WMO DPM Programme Office should be considered.

76. When considering the appropriate shape and size of the Programme Office, it is important to recognize that a key component of its duties will be cross-cutting coordination across WMO and supported programmes, facilitation of the development of various products and services, development and facilitation/coordination/execution (depending on the activity) of projects related to communication mechanisms, advocacy, best practices, partnerships, project management, and DPM Programme Office-specific projects in support of WMO and NMHSs.

77. Based on the activities proposed in this Implementation Plan, together with the need for internal coordination across WMO and supported programmes, the following structure is envisaged for the WMO DPM Programme Office:



78. The WMO DPM Programme Leader will be responsible for:
- Coordinating and executing the implementation of the WMO DPM Programme;
 - Overseeing specific activities within the Implementation Plan related to the DPM Programme Office activities;
 - Supervising and coordinating all staff in the WMO DPM Programme Office;
 - Acting as focal point on disaster prevention and mitigation matters for all WMO and supported programmes;
 - Identification and facilitation of partnerships;
 - Resource mobilization in collaboration with programmes.

WMO resource implications

79. The implementation arrangements, proposed in this Plan, have resource implications for both WMO and its partner organizations.

80. The budgetary aspects of the WMO cross-cutting DPM Programme fall into two categories:

- Support for strengthening and sustaining the DPM Programme Office;
- Budget to support the coordinated cross-cutting DPM projects of WMO;
 - Extrabudgetary resource mobilization activities of the DPM Programme Office in collaboration with relevant WMO Programmes; and
 - Coordinated WMO Programme budgets designated for DPM activities as relevant to each project.

ANNEX V

Annex to paragraph 4.1.1 of the general summary

REPORT OF THE WMO AUDIT COMMITTEE TO THE FIFTY-SEVENTH SESSION OF THE EXECUTIVE COUNCIL**Introduction**

1. The Audit Committee held its first meeting on 18 and 19 October 2004, its second meeting on 21 and 22 February 2005, and its third meeting on 17 and 18 June 2005. The chairperson and members of the Audit Committee as well as the documentation considered by the Audit Committee are listed at the end of the report.

Appointment of the chairperson and organizational matters

2. The Committee appointed Mr U. Gärtner as chairperson of the Audit Committee during its first meeting. The Committee reviewed and endorsed its terms of reference (AC-1/Doc.2). The Secretary-General addressed the meetings of the Audit Committee and representatives of the External Auditor participated as observers.

Action Plan of the Secretary-General

3. During the first meeting, the Committee reviewed the Action Plan (AC-1/Doc.3). The Secretary-General addressed the Committee by outlining the three phases of the Action Plan: integrity (the establishment of a new internal control system); transparency (the provision of key information for decision-making); and efficiency (the introduction of cost-effective operations). Also presented were the detailed follow-up to recommendations by the External Auditors (AC-1/Doc.4 and AC-1/Doc.5) relating of the biennia 2000-2001 and 2002-2003, the Joint Inspection Unit (AC-1/Doc.6) and the United Nations Controller (AC-1/Doc.7).

4. The Committee noted that the Action Plan provided a comprehensive presentation and expressed appreciation for the efforts implemented and planned since the fifty-sixth session of the Executive Council. The Committee appreciated in particular the forward-looking approach and the effort to improve the management culture of the Organization. The Committee noted with satisfaction that major progress had been achieved in 2004, in particular through the establishment of a new internal control system. Specifically, the Committee noted the promulgation of new Financial Rules of WMO (AC-1/Inf.1), which describe a new system of internal control, the establishment of a direct communication line (AC-1/Inf.2) for staff to report on issues of fraud and misuse of authority, the new procedure for the award of fellowships (AC-1/Inf.3), the consolidation and revision of the procurement arrangements (AC-1/Inf.4), the establishment of a Property Survey Board (AC-1/Inf.5) and the restructuring of the Resource Management Department. The Committee noted the recommendations by the External Auditor to improve the consistency in the financial statements, to remedy weaknesses in the internal control system, to improve the documentation on procedure and terminology and to introduce risk management. The Committee cautioned the Secretary-General with respect to milestones and encouraged the use of external support in implementing some of the initiatives.

5. During the second meeting, the Committee reviewed the Action Plan Update and Follow-up to the first meeting of the

Audit Committee (AC-2/Doc. 3). The Committee noted the progress reports on the recruitment of the treasury position, additional staffing of the Internal Audit and Investigation Service, training in the area of integrity and steps to introduce risk management. The Committee also welcomed the new format of the Action Plan by indicating information on initiatives, timelines, milestones and implementing office.

6. The Committee examined an example of the new reporting format for internal management on programme and budget (AC-2/Doc. 4). The Committee noted that the report provided comprehensive information to the Secretary-General on a quarterly basis and suggested to expand the part relating to the programme analysis. The Committee noted that such analysis would be required in particular for the annual programme performance report to be submitted by the Secretary-General to the Executive Council according to the result-based budgeting format.

7. The Committee reviewed the New Structure of Financial Statements (AC-2/Doc. 5). The Committee took note that the format had been developed in close cooperation with the External Auditors. The Committee also noted that the financial statements complied with the United Nations System Accounting Standards and questioned the usefulness and weaknesses of those standards. In particular, it was noted that financial statements as well as budget presentations do not adequately depict areas of financial risks and liabilities, such as the potential liability resulting from engaging long-term temporary staff. The Committee recommended that those risks and liabilities are clearly identified and suggested to review the application of different accounting standards, such as the International Public Accounting Standards, and report to the Committee accordingly. The Committee also suggested to further improving the format by including, in particular, a glossary and an introduction by the Secretary-General.

8. During the third meeting, the Committee considered the document Update of the Action Plan on Management Reform as of June 2005 (AC-3/Doc. 3). The Committee reviewed the status of implementation of the Action Plan, noting progress achieved and the delay of some activities. The Committee recommended that the Secretary-General assign specific personal accountability for the Action Plan items to both functional and programme managers in order to promote changes in the organizational culture that would strengthen internal controls. Furthermore, the Committee requested that the Secretary-General provide specific examples of monitoring activities and their frequency at the next Audit Committee meeting. The Committee strongly supported immediate initiation of an organizational risk assessment so that efforts required to improve internal controls could be better focused. In general, the Committee was pleased with improvements in internal control.

9. The Committee noted that the Secretary-General's communication strategy has been internally focused and considered the importance to communicate management

improvements to external audiences. The Committee emphasized the need to introduce staff training on internal control and to proceed with the fraud prevention training without further delay. The Committee took note of the intention of the Secretary-General to implement the ICSC Standards of Conduct for the International Civil Service as an interim measure, while continuing his current efforts to develop a WMO-specific code of ethics.

Fraud case

10. The Committee considered the fraud case during its first, second and third meetings. The Audit Committee met in closed session with restricted participation to discuss the investigation of the fraud case. The Secretary-General addressed the Committee on the investigation and follow-up to the fraud case. The meeting was briefed by the Senior Legal Advisor on the liaison with Swiss judicial authorities and by the Chief of Internal Audit and Investigation Service on the internal investigation. During the second meeting, the Deputy Secretary-General provided a status report on the work of the Joint Disciplinary Committee.

11. During the first meeting, the Committee requested the Secretary-General to conclude rapidly the internal investigation on the fraud case. During the second meeting, the Audit Committee expressed disappointment about the long time required for investigation and follow-up. Several members strongly stated that the investigation needed to cover all individuals inside and outside the Secretariat who may have held responsibilities in the fraud case. They were of the opinion that outside observers may regard lack of action as an attempt to obscure the investigation. The Committee urged the Secretary-General to pursue vigorously the investigation and to ensure the availability of sufficient resources and competence for the finalization of the investigation. The Committee took note of the assurance provided by the Secretary-General that he had requested the Chief, Internal Audit and Investigation Service (C/IAIS), to provide the final report by 31 March 2005 and that the result would be reported to the third meeting of the Audit Committee and to the Member States accordingly.

12. During the third meeting, the Secretary-General presented the Committee with a comprehensive overview of the internal fraud investigation, including the final report. He also shared the extent of the information that the Swiss authorities could make available to the Secretariat regarding their investigation.

13. The Committee expressed satisfaction with the Secretary-General's determination and sustained focus on investigating the fraud and attempting to recoup the losses. Likewise, the Committee valued its frank exchanges of views with the Secretariat and the Secretariat's responsiveness to the Committee's questions and recommendations about the investigation.

14. The Committee expressed regrets about the organization and execution of the investigation. In particular, in spite of the Secretary-General's genuine efforts, the Committee was of the opinion that the level of resources dedicated to the investigation had been inadequate and that the process was too lengthy. Some Committee members expressed concerns about whether the scope of investigation had been sufficiently broad. In addition, the Committee regretted that no provision was made by the Secretary-General to carry out routine internal work while C/IAIS was investigating the fraud. Concerns were also

expressed on the slow pace of implementation of some of the aspects of the Action Plan.

15. The Committee found the nine reports on the fraud by C/IAIS to be voluminous. They included worthy analyses of how the fraud was committed and offered a multitude of useful recommendations for shoring up internal controls. The Committee recognized that the internal investigation was principally focused on individuals still employed in the Secretariat and based on documents and electronic files available to C/IAIS. Within these constraints, the Committee took note that, based on the C/IAIS report of 21 October 2003, the Secretary-General had found strong evidence that one individual was directly involved in perpetrating the fraud over the period investigated. During the course of the investigation and disciplinary process it became apparent that other staff members had exhibited professional shortcomings. The Committee took note of the Secretary-General's report about the possible involvement of others outside of WMO. On the basis of the fraud investigation, it appears that the mechanism of the fraud was based principally on training courses and fellowships, including the actions of payment.

16. The Committee noted with appreciation the Secretary-General's prompt response to the 21 October 2003 report by C/IAIS. The identified individual was dismissed, and the case was handed to the Swiss authorities. The Committee noted the disciplinary actions taken by the Secretary-General against staff members. It regrets the remote chance of taking any action against former employees, who also may have been involved. The Committee supports the Secretariat's further actions against those outside the WMO that may have played a role in the fraud, including thorough cooperation with national investigative authorities.

17. The Committee considered whether the investigation should be further pursued. Given the unlikelihood of finding additional significant knowledge about the fraud and the human and financial resource costs involved, the Committee recommended closing the internal investigation of the fraud, recognizing that it should be re-opened later if additional, substantial information were uncovered. At the same time, the Committee asked the Secretary-General to complete ongoing actions related to the external investigation by the Swiss authorities and information about individuals outside WMO who may have been involved and to keep the Committee informed.

Recommendation 1:

That the Executive Council request the Secretary to close the internal investigation of the fraud, recognizing that it should be re-opened later if additional, substantial information were uncovered.

External Auditor

18. During the first meeting, the Committee took note of the External Auditor's plan to audit the interim accounts covering the year 2004. During the second meeting, the Committee reviewed four documents, including the Letter of Understanding between the National Audit Office of the United Kingdom and WMO (AC-2/Doc. 6), National Audit Office of the United Kingdom: Audit Strategy 2004 for WMO (AC-2/Doc. 7), National Audit Office of the United Kingdom: Interim External Audit Report to Management for 2004 (AC-2/Doc. 8) and WMO Follow-up Action to Interim External Audit Report to

Management for 2004 (AC-2/Doc. 10). The Committee expressed appreciation for the excellent documentation and for the good work provided by the External Auditor. The Committee took note, in particular, of the observations and recommendations contained in the Interim External Audit Report for 2004, covering the format of the accounts, budget monitoring, risk management, accounts closure timetable, relationships with executing partners and project accounting. Several members expressed concern about the findings by the External Auditors of financial management deficiencies in two audited subregional offices. The Secretariat elaborated on the implications of those findings for other WMO offices outside Headquarters and on the course of action to address the identified shortcomings. The Committee appreciated the timely and in-depth response by the Secretariat to the new audit recommendations.

19. During the third meeting, the Committee reviewed three documents, namely the National Audit Office of the United Kingdom: Regional Office for the Americas External Audit Report to Management (AC-3/Doc. 5), Financial Statement for the Year 2004 Certified by the External Auditor including its Report (AC-3/Doc. 7) and Follow-up to the Recommendations by the External Auditor Contained in the Report to Management on Regional Office for the Americas (AC-3/Doc. 6). The Committee expressed its gratitude to the External Auditor for the work done. The Committee noted with appreciation that the External Auditor had provided an unqualified opinion on the accounts for 2004 and recommended to the Executive Council the approval of the audited accounts for the year 2004. The Committee was concerned that the External Auditor highlighted management control deficiencies in the fellowship areas, in light of the findings of a previous external audit. The Secretary-General indicated that he took responsibility to address these shortcomings and that some new management and control actions were implemented in early February 2005. The Committee supported additional internal controls in this area.

20. The Committee supported the recommendations of the External Auditor and the response of the Secretary-General as outlined in Appendix C of document AC-3/Doc. 7. With regard to Recommendation 9 of the External Auditor, the Committee took note of the intention of the Secretary-General to implement the ICSC Standards of Conduct for the International Civil Service as an interim measure, while continuing his current efforts to develop a WMO specific code of ethics. The Committee also noted the support of the Secretary-General for Recommendation 12 of the External Auditor on internal audit arrangements. The Committee made the following specific recommendations to the Executive Council.

Recommendation 2:

That the Executive Council:

- 2.1 Approve the financial statement for the year 2004 certified by the External Auditor including its report.
- 2.2 Approve that the financial statements are audited on an annual basis starting 2005 in accordance with Recommendation 1 of the External Auditor.
- 2.3 Approve the continuation of the Audit Committee and a clarification of its mandate by including its governance function.
- 2.4 Approve a change in the membership of the Audit Committee by including an additional third financial

expert to be proposed by the Secretary-General and appointed by the President of WMO on the basis of Recommendation 6 of the External Auditor.

- 2.5 Consider the establishment of a task force to review the operation and mandate of the Bureau and the role of FINAC vis-à-vis the Audit Committee on the basis of Recommendations 10 and 11 of the External Auditor.
- 2.6 Approve the simplification of the financial arrangement for support costs by transferring support funds to the General Fund and proposing the necessary budget adjustment in the context of the proposed programme and budget for the biennium 2008-2009 on the basis of Recommendation 5 of the External Auditor.

Internal Audit

21. During the first meeting, the Committee requested the Secretary-General to strengthen the internal audit operation on an urgent basis and to provide adequate resources. During the second meeting, the Committee noted the progress report on the strengthening of staffing of the Internal Audit and Investigation Service. In addition, the Secretary-General announced his intention to propose a substantial upgrade of the staffing of the Internal Audit and Investigation Service supplementary to the additional staff already available.

22. During the first meeting, the Committee took note of the internal audit plan for 2004 (AC 1/Inf. 11) and requested comments thereon by one of the external expert. During the second meeting, the Committee took note of a presentation by the Chief, Internal Audit and Investigation Service, on the Audit Plan 2005 and reviewed the Comments of External Expert on Interim Audit Plan for 2005 (AC-2/Doc. 9). The Committee noted that the audit plan presented a statement of intention, rather than a detailed audit plan and requested that such a substantiated and detailed plan be prepared. The Committee expressed concern that a robust plan of routine internal audit had not been initiated, at a time when WMO was engaged in a multitude of management reforms and responding to previous audit opinion. The Committee requested the Internal Auditor to provide, as a matter of routine, the Executive Council with a written report covering the following: (i) a summary of audits and investigations undertaken; (ii) conclusions and recommendations resulting from the audits and investigations; (iii) assessment of adequacy of existing internal controls; (iv) work envisioned for the following year; and (v) the Auditor's view on areas of potential concern or risk that warrant management review. The Committee requested the Secretary-General to ensure that the adequate closure of the fraud case was of highest priority and that the new internal control procedures and the work of the field operation be audited on a priority basis.

23. During the third meeting, the Committee reviewed two documents, namely Progress/Activity Report: Review of Internal Control of Critical Areas (AC-3/Doc. 9) and Internal Audit Plan 1 August 2005-30 June 2006 (AC-3/Doc. 10). The Committee was disappointed in the lateness of the documents, which were presented at the day of the meeting. The Committee noted that the Audit Plan did not cover all the areas of interest specified at the Committee's second meeting and did not clearly designate verification of measures under the Action Plan to improve internal controls as its top priority. The

Committee noted that there was some confusion concerning the difference between the assessment of business risk and the assessment of risk for the purposes of developing the audit plan and wished to see greater clarity in this area in future. The Committee expected a well-developed internal audit plan for the calendar year 2006 to be reviewed at its next meeting. The plan should address the issues raised above.

24. During the third meeting, the Committee also reviewed the document Strengthening of Internal Oversight (AC-3/Doc. 8). The Committee noted that the fraud case discovered in July 2003 brought to light serious deficiencies in the internal audit service which had been put in place based on the decisions of the forty-eighth, fiftieth and fifty-first sessions of the Executive Council and the new financial regulations adopted by Thirteenth Congress. In addition, the slowness of the investigation on a case of fraud confirmed that it was essential to reinforce the internal audit service by providing the necessary resources, qualifications, expertise and independence indispensable for fulfilling its tasks. In accordance with this understanding, the Audit Committee recommended that the Executive Council authorizes the Secretary-General to make the necessary staff adjustments to attain these objectives within the budgetary envelope for 2006-2007 of CHF 1 756 100 as proposed in the context of the programme and budget for the biennium 2006-2007 (EC-LVII/Doc. 5(1) and high priority activities for the biennium 2006-2007 (EC-LVII/Doc. 5(2)).

25. Furthermore, the Audit Committee recommended that the Secretary-General conduct a needs assessment of the audit services, by obtaining, external advice from, amongst others, the External Auditor. On the basis of this assessment, the Secretary-General is further requested to examine the appropriateness of outsourcing part or all of the internal audit services. The Committee recognized that outsourcing should be considered for specialized areas, such as internal audit of information technology, or where third party providers might be a more cost-effective option such as the audit of regional offices.

Recommendation 3:

That the Executive Council:

- 3.1 Request the Secretary-General to strengthen the internal audit services on an urgent basis within the budget envelope proposed for the biennium 2006-2007.
- 3.2 Request the Secretary-General to conduct a needs assessment of the audit services and to examine the options of outsourcing some or all of the internal audit services and report this to the fifty-eighth session of the Executive Council.

CHAIRPERSON AND MEMBERS OF THE AUDIT COMMITTEE*

Chairperson: U. Gärtner (Permanent Representative of Germany with WMO and Executive Council member)

* Detailed record of attendance of the chairperson, members of the Committee and their representatives and assistance, the Secretariat and observers are included in the report of each meeting of the Audit Committee.

Members: J.-P. Beysson (Permanent Representative of France with WMO and Executive Council member)
 Brig. Gen. J.J. Kelly, Jr. (Permanent Representative of USA with WMO and Executive Council member)
 J. Lengoasa (Permanent Representative of South Africa with WMO and Executive Council member)
 K. Nagasaka (Permanent Representative of Japan with WMO and Executive Council member)
 Qin Dahe (Permanent Representative of China with WMO and Executive Council member)
 B. Juppín de Fondaumière (Financial expert)
 H. Wild (Financial expert)

DOCUMENTATION CONSIDERED BY THE AUDIT COMMITTEE

Documentation considered by the first meeting of Audit Committee

AC-1/Doc. 1	Revised Provisional Agenda
AC-1/Doc. 2	Terms of Reference of Audit Committee
AC-1/Doc. 3	Action Plan: Concept, Achievements and Way Forward
AC-1/Doc. 4	Follow-up to the Recommendations by the External Auditor on the Accounts for the Biennium 2000-2001
AC-1/Doc. 5	Follow-up to the Recommendations by the External Auditor on the Accounts for the Biennium 2002-2003
AC-1/Doc. 6	Follow-up to the Recommendations by the Joint Inspection Unit
AC-1/Doc. 7	Follow-up to the Recommendations by the United Nations Controller
AC-1/Doc. 8	Draft Report of the Audit Committee
AC-1/Inf. 1	Financial Rules of WMO
AC-1/Inf. 2	Establishment of a Direct Communication Line
AC-1/Inf. 3	Approval and Authorization of Fellowship Request from WMO Members
AC-1/Inf. 4	Terms of Reference of Procurement and Contracts Committee and Consolidation of Procurement Functions of WMO
AC-1/Inf. 5	Terms of Reference of Property Survey Board
AC-1/Inf. 7	The Opinion and Report of the External Auditor on the Accounts for the Biennium 2000-2001 and the Replies of the Secretary-General
AC-1/Inf. 8	The Opinion and Report of the External Auditor on the Accounts for the Biennium 2002-2003 and Replies of the Secretary-General
AC-1/Inf. 9	Management Letter on the Adequacy of Internal Controls at the World Meteorological Organization by the Joint Inspection Unit
AC-1/Inf. 10	Review of WMO's Financial Management System by the United Nations Controller
AC-1/Inf. 11	Status Activities Report and Internal Audit Plan 2004

Documentation considered by the second meeting of Audit Committee

AC-2/Doc. 1	Provisional Agenda
AC-2/Doc. 2	Draft Report of the First Meeting of the WMO Audit Committee
AC-2/Doc. 3	Action Plan Update and Follow-up to the First Meeting of the Audit Committee
AC-2/Doc. 4	Example of New Reporting Format on Programme and Budget: Budget and Finance Report, Status at 31 October 2004
AC-2/Doc. 5	New Structure of Financial Statements
AC-2/Doc. 6	Letter of Understanding between the National Audit Office of the United Kingdom and WMO
AC-2/Doc. 7	National Audit Office of the United Kingdom: Audit Strategy 2004 for WMO
AC-2/Doc. 8	National Audit Office of the United Kingdom: Interim External Audit Report to Management for 2004
AC-2/Doc. 9	Comments of External Expert on Interim Audit Plan for 2005
AC-2/Doc. 10	WMO Follow-up Action to Interim External Audit Report to Management for 2004

Documentation considered by the third meeting of Audit Committee

AC-3/Doc. 1	Provisional Agenda
AC-3/Doc. 2	Draft Report of the Second Meeting of the WMO Audit Committee
AC-3/Doc. 3	Update of the Action Plan on Management Reform as of June 2005
AC-3/Doc. 4	Draft Report of the Audit Committee to the Fifty-Seventh Session of the Executive Council
AC-3/Doc. 5	National Audit Office of the United Kingdom: Regional Office for the Americas External Audit Report to Management
AC-3/Doc. 6	WMO Follow-up Action to Regional Office for the Americas External Audit Report to Management
AC-3/Doc. 7	Financial Statements for the Year 2004 Certified by the External Auditor including its Report
AC-3/Doc. 8	Strengthening of Internal Oversight
AC-3/Doc. 9	Progress/Activity Report: Review of Internal Control of Critical Areas
AC-3/Doc. 10	Internal Audit Plan 1 August 2005-30 June 2006

ANNEX VI

Annex to paragraph 4.2.1.1 of the general summary

**SITUATION OF WOMEN IN THE WMO SECRETARIAT
JANUARY 1995 - DECEMBER 2004**

Global analysis

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
UG										
D-2					1	1	1	1		1
D-1								1	2	2
P-5	4	4	4	3	3	5	7	9	9	10
P-4	9	10	9	9	7	8	8	8	10	10
P-3	7	8	10	9	7	10	10	8	7	5
P-2 *	1	2	3	3	2	2	2	1	1	1
P-1										
G-7	9	9	9	9	8	7	7	5	6	5
G-6	28	26	23	22	23	24	26	30	28	23
G-5	47	44	43	48	54	58	69	55	62	60
G-4	31	31	27	22	25	22	11	18	13	12
G-3				1	1	1	1	3	2	2
G-2	3	3	2	1	2	2	2			
G-1	1	1	1							
TOTAL	140	138	131	127	133	140	144	139	140	131

* Correspond to Junior Professional Officers

Total no. of staff (as per <i>Annual Report</i> not counting supernumeraries)	269	264	258	249	266	264	266	260	258	244
Percentage women	52%	52%	51%	51%	50%	53%	54%	53%	54%	54%

Recruitment

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
UG										
D-2					1					1
D-1								1	1	
P-5					1	2	2	2	1	1
P-4		1			1	1	2		2	
P-3	2	1	1		1	3				
P-2 *		1	1		1					
P-1										
TOTAL	2	3	2	0	5	6	4	3	4	2

* Correspond to Junior Professional Officers

ANNEX VII

Annex to paragraph 8.2.18 of the general summary

**EXECUTIVE COUNCIL STATEMENT ON THE ROLE AND OPERATION
OF NATIONAL METEOROLOGICAL AND HYDROLOGICAL SERVICES
(FOR DECISION MAKERS)**

Key social and economic drivers

1. Governments are striving to improve the well-being of their citizens. Population growth, reducing poverty, water security, food security, increasing prosperity, and improving public health, safety and security are key drivers. To deal with these issues, governments have to develop and implement effective policy, and promote fundamental tenets of societal and environmental governance. However, as regards the environment, it is common knowledge that we are challenged by our natural environment, made worse by changes in the climate, which threatens the sustainable development of human societies through extreme weather events causing disasters, reduced food security, reduced availability of uncontaminated freshwater, and the rise and spread of diseases. This is further compounded by growing urbanization and the expansion of human habitation into previously unoccupied places, such as arid zones, mountain slopes, and flood plains. The sea's edge is exposing populations to air and waterborne diseases, heat stress, drought, landslides, floods, storm surges and tsunamis.

2. The safety of life and protection of property is important for all countries but especially for the sustainability of emerging economies. These countries are highly vulnerable to natural disasters, which can wipe out 10 to 15 per cent of a developing nation's gross domestic product on average. Only with a clear understanding of the potential threats, advanced warning, and adequate disaster reduction and mitigation efforts can we properly protect our societies.

3. These are issues that must be dealt with if the global community is to attain the targets set through the 2000 Millennium Declaration, which are also highlighted by the 2002 Johannesburg Plan of Implementation of the World Summit on Sustainable Development.

The role of National Meteorological and Hydrological Services

4. As has been the case since the beginning of the modern era of societal and environmental management, knowledge of weather and climate is key to all aspects of human endeavours. It is within this framework that NMHSs in various countries have been well positioned to identify and deal with a wide range of weather, climate and water related issues that affect human life and socio-economic development. For example, with regard to natural hazards, NMHSs have been tasked to sensitize the population to their impacts, and to provide warnings of individual events, to save lives, to sustain productivity, and to reduce damage to property.

5. NMHSs constitute the single authoritative voice on weather warnings in their respective countries, and in many they are also responsible for climate, air quality, seismic and tsunami warnings. To reduce and mitigate disasters requires well prepared NMHSs as well as governments and populations to take appropriate action in response to warnings. NMHSs,

within the framework of WMO, are working to help governments improve decision-making to enable populations to adapt to climate change, mitigate natural hazards and sustain development. By helping governments and the people to avert potential disasters, NMHSs are a fundamental component of the crisis management infrastructure of countries in their nation-building endeavours and, indeed, a contributor to sustainable development, particularly the poverty alleviation effort. NMHSs are working together to implement the WMO Multi-hazard Prevention Strategy, which aims to reduce by 50 per cent over the decade 2010-2019 the number of fatalities caused by meteorological-, hydrological- and climate-related natural disasters compared with the 10-year average fatalities of 1995-2004.

6. NMHSs are continuously monitoring the environment through observations of the Earth system and predicting changes in this system. They provide governments with timely and precise warnings of most potential natural hazards and contribute essential environmental information and services for urban planning, sustainable energy development, access to freshwater, and food production.

7. Cooperation between various organizations is essential to provide governments with these services. Partnerships between NMHSs and academia, government departments, international and non-governmental organizations, and where appropriate and possible, the private sector, help society make better decisions based on more complete and accurate weather, water and climate information. These partnerships provide better data coverage and information processing, higher resolution models, and more precise and useful specialized products for societal benefits, including opportunities to support better government and other decision makers regarding safety, economics, and security. NMHSs are encouraging these partnerships by adopting open and unrestricted data policies which make their information easy to access in real time, in useful forms, and at low cost.

Future requirements

8. In the year 2000, through the internationally-agreed development goals, including those contained within the Millennium Declaration, the international community set forth specific targets to be reached by 2015. To ensure that these goals are met, it is essential that governments take advantage of the myriad advances in science and technology provided by NMHSs and their partners, that include the provision of multi-hazard warnings and related services, 24 hours a day, seven days a week for 365 days a year, which when properly applied can provide societies with the underpinning information to reduce and mitigate natural disasters. International cooperation is essential, both between countries and within the larger United Nations framework of specialized agencies.

9. Access to good communication ensures that information is available wherever it is needed. Governments must recognize

the importance of continuous monitoring of the environment and the ability of their NMHSs to provide timely and accurate information to inform of critical decisions. They should support continuously NMHSs and their modernization and development.

10. It is essential that societies be prepared to act appropriately in response to warnings. Education and training is paramount for improvement of preparedness. Early warning systems for natural hazards work only if governments and their public know how to respond. Information must be easy to understand and use.

11. Climate change requires societies to understand and assess impacts and to develop the necessary adaptation strategies. By providing fundamental knowledge of the climate system and predictions based on climate models, NMHSs can help societies transform.

12. To be completely effective, NMHSs and their international network, coordinated through the WMO, must be recognized as critical partners in societies' goal to reduce poverty and increase the prosperity of the world's citizens.

ANNEX VIII

Annex to paragraph 11.4.2 of the general summary

MEMBERSHIP OF PANELS AND OTHER BODIES REPORTING TO THE EXECUTIVE COUNCIL

EXECUTIVE COUNCIL PANELS OF EXPERTS

Executive Council Panel of Experts on Education and Training

A.I. Bedritsky	-	President of WMO (chairperson)
A. Lagha	-	Algeria
G. Necco	-	Argentina
C. Depradine	-	British Caribbean Territories
Z. Sun	-	China
C. Billard	-	France
N. Jayanthi (Ms)	-	India
F. Gnoumou	-	Niger
B. Soriano	-	Philippines
C. Garcia Legaz	-	Spain
R. Riddaway	-	United Kingdom
P. Thomas	-	United States

EXECUTIVE COUNCIL WORKING GROUPS AND ADVISORY GROUPS

Executive Council Working Group on Antarctic Meteorology

The Working Group is composed of members nominated by the Permanent Representatives of countries which are Parties to the Antarctic Treaty and experts designated by Permanent Representatives of Members who have not yet acceded to the Treaty but have active meteorological programmes in the Antarctic. The present membership is as follows:

Qin Dahe	-	China (chairperson)
H. Sosa	-	Argentina
S. Pendlebury	-	Australia
A. W. Setzer	-	Brazil
J. Carrasco	-	Chile
Bian Lingen	-	China
Ju Damski	-	Finland
J.P. Mac Veigh	-	France
W. Seifert	-	Germany
B. Lal	-	India

G. Frustaci	-	Italy
Y. Kozawa	-	Japan
H. Kelder	-	Netherlands
S. Nichol	-	New Zealand
M. Kristensen (Ms)	-	Norway
C. del Carmen	-	Peru
M. Mietus	-	Poland
Yu. Tsaturov	-	Russian Federation
G.J.R. Goetzee	-	South Africa
A. Labajo	-	Spain
N. Tokar (Ms)	-	Ukraine
J.D. Shanklin	-	United Kingdom
M. Bernasconi	-	Uruguay
B. Lettau	-	United States

Executive Council Working Group on Long-term Planning

A-M. Noorian - First Vice-President (chairperson)

M.L. Bah
J.-P. Beysson
M.D. Everell
A.M.H. Isa
J.R. Mukabana
K. Nagasaka
A. Ngari
J. Mitchell
M.S. Saadallah
R. Michelini

(Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)

Executive Council Advisory Group on the International Exchange of Data and Products

M.A. Rabiolo - Third Vice President (chairperson)
J.-P. Beysson
J.J. Kelly
J.R. Lumsden
F.P. Mote

J.R. Mukabana
 S. Nair
 I.Obrusnik
 J.K. Rabadi
 B.T.Sekoli
 (Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)

Executive Council Advisory Group of Experts on Technical Cooperation

T.W. Sutherland - Second Vice-President (chairperson)
 M.L. Bah
 B. Kassahun
 Q. uz Z. Chaudhry
 Qin Dahe
 H.H. Oliva
 C. Fuller
 Chow Kok Kee
 A. Ngari
 D.F. Gonzalez Cadarso
 D.K. Keuerleber-Burk
 M. Capaldo

Executive Council Working Group on the Evolution of NMHSs and WMO*

A.I. Bedritsky - President (chairperson)
 J.P. Beysson
 A.D. Moura
 M.D. Everell
 C. Fuller
 A.M.H. Isa
 D.K. Keuerleber-Burk
 G. Love
 J.R. Lumsden
 M. Mhita
 N.F. Ouattara
 J. Mitchell
 M.S. Saadallah
 (Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)

Executive Council Advisory Group on Climate and Environment

A.M. Noorian -First Vice-President (chairperson)
 Q. uz Z. Chaudhry
 Chow Kok Kee
 A. Divino Moura
 W. Kusch
 B. Kassahun
 G. Love
 P. Manso
 S. Nair

* Merging the Executive Council Advisory Group on the Role and Operation of NMHSs and the Executive Council Action Group for an Enhanced WMO.

Qin Dahe
 B.T. Sekoli
 D.F. Gonzalez Cadarso
 (Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)

Executive Council Advisory Group on Natural Disaster Prevention and Mitigation

I. Obrusnik (chairperson)
 W. Kusch
 J.J. Kelly
 J.R. Lumsden
 M.A. Rabiolo
 P. Manso
 M. Mhita
 R. Michelini
 F.P. Mote
 K. Nagasaka
 S. Nair
 N.F. Ouattara
 J.K. Rabadi
 M. Capaldo
 (Presidents of relevant technical commissions to be invited as experts by the chairperson, as appropriate)

Audit Committee

B. Kassahun
 J.-P. Beysson
 J.J. Kelly
 R. Michelini
 K. Nagasaka
 Qin Dahe
 (Three financial experts proposed by the Secretary-General and appointed by the President of WMO)

Task Force on Recommendations Emanating from the Audit Committee

G. Love
 A.D. Moura
 W. Kusch
 M.L. Bah
 A.I. Bedritsky
 M.D. Everell

Executive Council Task Team to Explore and Assess the Possible Changes to the WMO Convention

W. Kusch
 M. S. Mhita
 K. Nagasaka
 C.C. Fuller
 Chow Kok Kee
 M.A. Rabiolo
 (President of relevant technical commissions to be invited by the chairperson, as appropriate)

SELECTION COMMITTEES**Selection Committee for the IMO Prize**

J.K. Rabadi (chairperson)

B. Kassahun

A.D. Moura

J. Lumsden

Selection Committee for the WMO Research Award for Young Scientists

M.A. Rabiolo (chairperson)

N.F. Ouattara

J. Lumsden

D.F. Gonzalez Cadarso

Selection Committee for the Professor Dr Vilho Vaisala Award

S. Nair (chairperson)

F.P. Mote

R.D. Canterford, acting president of CIMO

Selection Committee for the Norbert Gerbier-MUMM International Award

H. H. Oliva (chairperson)

B. Kassahun

President of CAgM

WMO Staff Pension Committee

J.-P. Beysson

M.S. Saadallah

T. Sutherland

APPENDIX A

LIST OF PERSONS ATTENDING THE SESSION

1. MEMBERS OF THE EXECUTIVE COUNCIL

A.I. Bedritsky	President
A.-M. Noorian	First Vice-President
T.W. Sutherland	Second Vice-President
M.A. Rabiolo	Third Vice-President
M.S. Mhita	President RA I
A. Majeed H. Isa	President RA II
R. Michelini	Acting President RA III
C. Fuller	President RA IV
A. Ngari (from 23/6)	Acting President RA V
D.K. Keuerleber-Burk	Acting President RA VI

M.L. Bah
 J.-P. Beysson
 F. Cadarso (designated 21/6)
 M. Capaldo (designated 1/7)
 Q.Z. Chaudhry
 Chow Kok Kee
 U. Gärtner (21-30/6)
 B. Kassahun
 J.J. Kelly
 W. Kusch (21-30/6)
 R.D.J. Lengoasa
 G.B. Love
 J. Lumsden
 P. Manso
 J. Mitchell (designated 1/7)
 F.P. Mote
 A.D. Moura
 J.R. Mukabana
 K. Nagasaka
 S. Nair (designated 21/6)
 I. Obrusnik
 H.H. Oliva
 N.F. Ouattara
 Qin Dahe
 J. Rabadi
 D. Rogers (21-30/6)
 M.S. Saadallah (designated 21/6)
 B.T. Sekoli
 R. Sorani (21-30/6)

2. ALTERNATES AND ADVISERS

I.V. Shapovalov	Alternate to A.I. Bedritsky
V.O. Bakumov (part-time)	Adviser to A.I. Bedritsky
V. Kattsov (part-time)	Adviser to A.I. Bedritsky
M. Kochetkov (part-time)	Adviser to A.I. Bedritsky
N. Lozinsky (part-time)	Adviser to A.I. Bedritsky
V. Meleshko (part-time)	Adviser to A.I. Bedritsky
M.V. Petrova (Ms) (part-time)	Adviser to A.I. Bedritsky
A. Postnov (part-time)	Adviser to A.I. Bedritsky
N. Sikachev (part-time)	Adviser to A.I. Bedritsky
V. Trenin (part-time)	Adviser to A.I. Bedritsky

S. Tulinov (part-time)	Adviser to A.I. Bedritsky
R. Vilfand (part-time)	Adviser to A.I. Bedritsky
L. Salimabadi (Ms)	Alternate to A.-M. Noorian
F. Mohammadi (Ms) (part-time)	Adviser to A.-M. Noorian
A. Motiei (part-time)	Adviser to A.-M. Noorian
P. Pourkiani (part-time)	Adviser to A.-M. Noorian
F. Sambula	Alternate to T. Sutherland
H.O. Sosa	Alternate to M.A. Rabiolo
P.F. Tibajuka (21-26/6)	Adviser to M.S. Mhita
(from 27/6)	Alternate to M.S. Mhita
A. Kijazi (Ms)	Adviser to M.S. Mhita
C.Y. Lam	Alternate to A. Majeed H. Isa
S. Bukhari (part-time)	Adviser to A. Majeed H. Isa
A. Daham (part-time)	Adviser to A. Majeed H. Isa
M. L. Selassi	Adviser to A. Majeed H. Isa
A. Dania	Alternate to C. Fuller
A. Ngari (21-22/6)	Alternate to Woon Shih Lai
R. Prasad (21-22/6)	Adviser to Woon Shih Lai
(from 23/6)	Alternate to A. Ngari
P. Garnier	Alternate to D.K. Keuerleber-Burk
A. Rubli	Adviser to D.K. Keuerleber-Burk
C. Blondin	Alternate to J.-P. Beysson
J.M. Marcos (from 21/6)	Alternate to F. Cadarso
A. Khokher	Alternate to Q.Z. Chaudhry
M. Husain	Adviser to Q.Z. Chaudhry
D. Grimes (21-23/6)	Alternate to M.D. Everell
B. Angle (part-time)	Adviser to M.D. Everell
M. Béland (part-time)	Adviser to M.D. Everell
C. McLeod (part-time)	Adviser to M.D. Everell
(21-23/6)	Alternate to M.D. Everell
(from 24/6)	Adviser to M.D. Everell
J. Meddings (part-time)	Adviser to M.D. Everell
S. Nadon (part-time)	Adviser to M.D. Everell
A. Wallace (part-time)	Adviser to M.D. Everell
W. Kusch (21-30/6)	Alternate to U. Gärtner
S. Demuth (part-time)	Adviser to U. Gärtner/ W. Kusch
D. Frömming (part-time)	Adviser to U. Gärtner/ W. Kusch
G.-R. Hoffmann (part-time)	Adviser to U. Gärtner/ W. Kusch
W. Klein (part-time)	Adviser to U. Gärtner/ W. Kusch
D.H. Kranen (part-time)	Adviser to U. Gärtner/ W. Kusch
M. Mohr (Ms) (part-time)	Adviser to U. Gärtner/ W. Kusch
P. Paeffgen (part-time)	Adviser to U. Gärtner/ W. Kusch
C. Richter (Ms) (part-time)	Adviser to U. Gärtner/ W. Kusch

R. Masters	(part-time) (21-22/6)	Alternate to J.J. Kelly	P. Tarif (Ms)	(part-time)	Adviser to D. Rogers/ J. Mitchell
D.L. Johnson	(part-time) (from 23/6)	Alternate to J.J. Kelly	M.H.A. Doss	(part-time)	Alternate to M.S. Saadallah
W. Bolhofer	(part-time)	Adviser to J.J. Kelly	M. Elewa	(part-time)	Adviser to M.S. Saadallah
C. Koblinsky	(part-time)	Adviser to J.J. Kelly	N. Hassan (Ms)	(part-time)	Adviser to M.S. Saadallah
H. Lins	(part-time)	Adviser to J.J. Kelly	A. Ibrahim	(part-time)	Adviser to M.S. Saadallah
R. Masters	(part-time) (from 23/6)	Adviser to J.J. Kelly	M. Capaldo	(part-time) (21-30/6)	Alternate to R. Sorani
J. Purdom	(part-time)	Adviser to J.J. Kelly	F. Ferrini	(part-time)	Adviser to R. Sorani/ M. Capaldo
D.B. Smith	(part-time)	Adviser to J.J. Kelly	S. Pasquini	(part-time)	Adviser to R. Sorani/ M. Capaldo
J. Stuart	(part-time)	Adviser to J.J. Kelly	D. Scordato	(part-time)	Adviser to R. Sorani/ M. Capaldo
J. Toohey-Morales	(part-time)	Adviser to J.J. Kelly			
K. Turner (Ms)	(part-time)	Adviser to J.J. Kelly			
J. Mphepya		Alternate to R.D.J. Lengoasa			
V.K. Tsui		Alternate to G. Love			
A. Apostolou (Ms)	(part-time)	Adviser to G. Love	3. PRESIDENTS OF TECHNICAL COMMISSIONS		
K. Charles (Ms)	(part-time)	Adviser to G. Love	N. Gordon (21-26/6)		Commission for
L. Gordon (Ms)	(part-time)	Adviser to G. Love	C. McLeod (vice-president)		Aeronautical Meteorology
M. Sawers	(part-time)	Adviser to G. Love	(from 27/6)		
A.C. Vieira		Alternate to A.D. Moura	R.P. Motha		Commission for
C.E. Carvalho Gomes	(part-time)	Adviser to A.D. Moura			Agricultural Meteorology
M.R. Fontes Faria (Ms)	(part-time)	Adviser to A.D. Moura	A.V. Frolov (vice-president)		Commission for
O. de Moraes	(part-time)	Adviser to A.D. Moura			Atmospheric Science
Cordeiro Netto			A. Gusev		Commission for Basic
W. Nyakwada		Alternate to J.R. Mukabana			Systems
F. Edalia		Adviser to J.R. Mukabana	Y. Boodhoo		Commission for Climatology
S.W. Kahuha		Adviser to J.R. Mukabana	B. Stewart		Commission for Hydrology
T. Hashida		Alternate to K. Nagasaka	R. Canterford		Commission for Instruments
K. Kuroiwa		Adviser to K. Nagasaka	(acting president)		and Methods of Observation
I. Takahashi		Adviser to K. Nagasaka	J. Guddal (co-president)		Joint WMO/IOC Technical
B. Lal	(from 21/6)	Alternate to S. Nair			Commission for
G. Srinivasan	(from 21/6)	Adviser to S. Nair			Oceanography and Marine
Yu Rucong		Alternate to Qin Dahe			Meteorology
Chen Zhenlin	(part-time)	Adviser to Qin Dahe	4. HYDROLOGICAL ADVISERS		
Guo Yaxi (Ms)	(part-time)	Adviser to Qin Dahe	J. Wellens-Mensah		Regional Association I
Juncai Gao	(part-time)	Adviser to Qin Dahe	I. Shiklomanov		Regional Association II
Li Dongyan (Ms)	(part-time)	Adviser to Qin Dahe	C. Barrett		Regional Association IV
Liu Wanjun	(part-time)	Adviser to Qin Dahe	R. Raj		Regional Association V
Shi Peiliang	(part-time)	Adviser to Qin Dahe	J. Kubat		Regional Association VI
Sun Jian	(part-time)	Adviser to Qin Dahe			
Wu Lan	(part-time)	Adviser to Qin Dahe	5. INVITED EXPERTS		
Yu Jixin	(part-time)	Adviser to Qin Dahe	P. Mason		
Zhang Guocai	(part-time)	Adviser to Qin Dahe	N. Sayers		
Zhang Wenjian	(part-time)	Adviser to Qin Dahe			
Zhao Yangling (Ms)	(part-time)	Adviser to Qin Dahe	6. LECTURERS		
M. Gray		Alternate to D. Rogers/ J. Mitchell	M. Glantz		
A. Calver (Ms)	(part-time)	Adviser to D. Rogers/ J. Mitchell	C.Y. Lam		
B. Garnier-Schofield (Ms)	(part-time)	Adviser to D. Rogers/ J. Mitchell	C.C. Lautenbacher		
J. Mitchell	(part-time) (21-30/6)	Adviser to D. Rogers	7. REPRESENTATIVES OF INTERNATIONAL ORGANIZATIONS		
S. Palmer	(part-time)	Adviser to D. Rogers/ J. Mitchell	A. Alusa		United Nations Environment Programme (UNEP)
G. Ryall (Ms)	(part-time)	Adviser to D. Rogers/ J. Mitchell	V. Mitchell (Ms)		Joint Inspection Unit (JIU)
C. Smith (Ms)	(part-time)	Adviser to D. Rogers/ J. Mitchell	M. Yussuf		
			C. Clark (Ms)		United Nations Educational, Scientific and Cultural Organization (UNESCO)

C. Clark (Ms)	Intergovernmental Oceanographic Commission (IOC)	G. Fleming B. Giles T. Molina J. Teather	International Association of Broadcast Meteorology (IABM)
P. Basabe S. Briceño	International Strategy for Disaster Reduction (ISDR)		
J.-P. Makosso	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	P. Hubert	International Association of Hydrological Sciences (IAHS)
A. Serrão	Agency of the Portuguese-speaking Countries and Territory of Macao in the Area of Climate and related Environmental Issues (CRIA)	R. List	International Union of Geodesy and Geophysics (IUGG)
D. Marbouty	European Centre for Medium-range Weather Forecasts (ECMWF)	O. El-Hajje	League of Arab States (LAS)
E. Oriol- Pibernat (Ms)	European Space Agency (ESA)	A. Kignaman- Soro S.N. Sok Appadu (ACMAD)	African Centre of Meteorological Applications for Development
J.-P. Chalon	European Meteorological Network (EUMETNET)	M.F.Ould Aghdhafna	Regional Training Centre for Agrometeorology and Operational Hydrology and their Applications (AGRHYMET)
L. Prahm P. Valabrega D. Williams	European Organization for the Exploitation of Meteorological Satellites (EUMETSAT)	C. Charstone (Ms) B. Sumner	Association of Hydrometeorological Equipment Industry (HMEI)
		A. Behnam	International Ocean Institute (IOI)

APPENDIX B

LIST OF ABBREVIATIONS

ACMAD	African Centre of Meteorological Applications for Development
ADM	Advanced Dissemination Method
ADPC	Asian Disaster Prevention Centre
ADRC	Asian Disaster Reduction Centre
AGRHYMET	Regional Training Centre for Agrometeorology and Operational Hydrology and their Applications
AHTEG	Ad Hoc Technical Expert Group
AMDAR	Aircraft Meteorological Delay Relay
AMESD	African Monitoring of the Environment for Sustainable Development
AMMA	African Monsoon Multidisciplinary Analysis
AMS	American Meteorological Society
ANADIA	Assessment of Natural Disaster Impacts on Agriculture
AREP	Atmospheric Research and Environment Programme
ASEAN	Association of South-East Asian Nations
ASECNA	Agency for Air Navigation Safety in Africa and Madagascar
ASMC	ASEAN Specialized Meteorological Centre
ATOVS	Advanced TIROS Operational Vertical Sounder
BIPM	International Bureau of Weights and Measures
CAeM	Commission for Aeronautical Meteorology
CAGM	Commission for Agricultural Meteorology
CAS	Commission for Atmospheric Sciences
CBD	Convention on Biological Diversity
CBS	Commission for Basic Systems
CCI	Commission for Climatology
CDMS	Climate Database Management System
CGMS	Coordination Group for Meteorological Satellites
CHy	Commission for Hydrology
C/IAIS	Chief, Internal Audit and Investigation Office
CIMO	Commission for Instruments and Methods of Observation
CLiC	Climate and Cryosphere
CLICOM	Climate Computing
CLIFORUC	Climate Forecasts for User Communities
CLIPS	Climate Information and Prediction Services
CLIVAR	Climate Variability and Predictability
CMA	China Meteorological Administration
CMM	Commission for Marine Meteorology
CODAE	Coastal Data Assimilation Experiment
CONASTEC	Contributions of Agriculture to the State of Climate
COP	Conference of the Parties
COPEs	Coordinated Observation and Prediction of the Earth System
COST	European Cooperation in the Field of Scientific and Technical Research
CPA	Communications and Public Affairs
CRED	Centre for Research on the Epidemiology of Disasters
CRIA	Agency for the Portuguese-speaking Countries and Territory of Macao in the Area of Climate and related Environmental Issues
CTBTO	Comprehensive Nuclear-Test-Ban Treaty Organization
DARE	Data Rescue
DETEMER	Development of a European Multimodel System for Seasonal-to-Interannual Prediction
DPM	Natural Disaster Prevention and Mitigation
DRR	Disaster Risk Reduction

EAMAC	African School of Meteorology and Civil Aviation
EARS	EUMETSAT ATOVS Retransmission Service
EC	Executive Council
EC-AGCE	Executive Council Advisory Group on Climate and Environment
EC-AGDPM	Executive Council Advisory Group on Natural Disaster Prevention and Mitigation
ECMWF	European Centre for Medium-Range Weather Forecasts
EMEP	Cooperative Programme for the Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe
EMWIN	Emergency Managers Weather Information Network
EPS	Ensemble Prediction System
ERA	Emergency Response Activities
ERP	Early Retirement Programme
ESA	European Space Agency
ETR	Education and Training
EUMET	European National Meteorological Services
EUMETNET	European Meteorological Services Network
EUMETSAT	European Organization for the Exploitation of Meteorological Satellites
EUROCONTROL	European Organization for the Safety of Air Navigation
FAO	Food and Agriculture Organization of the United Nations
FOCRAII	Forum on Regional Climate Monitoring-Assessment-Prediction for Asia
FWIS	Future WMO Information System
GAW	Global Atmosphere Watch
GAWSIS	GAW Station Information System
GCOS	Global Climate Observing System
GDAS	Global Disaster Alert System
GDPFS	Global Data-processing and Forecasting System
GEF	Global Environment Facility
GEO	Group on Earth Observation
GEOSS	Global Earth Observation System of Systems
GESAMP	Group of Experts on the Scientific Aspects of Marine Environmental Pollution
GEWEX	Global Energy and Water Cycle Experiment
GIFS	Global Interactive Forecasting System
GMA	Global Marine Assessment
GMDSS	Global Maritime Distress and Safety System
GODAE	Global Ocean Data Assimilation Experiment
GOOS	Global Ocean Observing System
GOS	Global Observing System
GPC	Global Producing Centre
GPS	Global Positioning System
GSN	GCOS Surface Network
GTS	Global Telecommunication System
GUAN	GCOS Upper-air Network
GURME	GAW Urban Research Meteorology and Environment
HFA	Hyogo Framework for Action
HMEI	Association of Hydrometeorological Equipment Industry
HWRP	Hydrology and Water Resources Programme
HYCOS	Hydrological Cycle Observing System
IABM	International Association of Broadcast Meteorology
IAEM	International Association of Emergency Managers
IAHS	International Association of Hydrological Sciences
ICAO	International Civil Aviation Organization
ICG	Intercommission Coordination Group
ICG	Intergovernmental Coordinating Group
ICSC	International Civil Service Commission
ICSC	International Core Steering Committee
ICSU	International Council for Science

ICT	Information and Communication Technology
IFALPA	International Federation of Air Line Pilots Association
IFATCA	International Federation of Air Traffic Controllers' Associations
IFRC	International Federation of the Red Cross and Red Crescent Societies
IGACO	Integrated Global Atmospheric Chemistry Observations
IGDDS	Integrated Global Data Dissemination Service
IGeoLab	International Geostationary Laboratory
IGOSS	Integrated Global Ocean Services System
IHO	International Hydrographic Organization
IMO	International Meteorological Organization
INSPIRE	Infrastructure for Spatial Information in Europe
IOC	Intergovernmental Oceanographic Commission
IODE	International Oceanographic Data and Information Exchange
IOI	International Ocean Institute
IOTEWS	Indian Ocean Tsunami Early Warning and Mitigation System
IOTWS	International Coordination Meeting for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean
IPA	Information and Public Affairs
IPCC	Intergovernmental Panel on Climate Change
IPO	International Programme Office
IPY	International Polar Year
ISCS	International Satellite Communications System
ISDR	International Strategy for Disaster Reduction
ISO	International Organization of Standardization
ISPS	International Ship and Port Security Code
ITU	International Telecommunication Union
IUGG	International Union of Geodesy and Geophysics
IWF	International Weather Festival
JC	Joint Committee
JCOMM	Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology
JIU	Joint Inspection Unit
JMA	Japan Meteorological Agency
JSC	Joint Scientific Committee
LAS	League of Arab States
LCC	Locust Control Centre
LDC	Least Developed Country
LRF	Long-range Forecasts
MSG	Meteosat Second Generation
MTN	Main Telecommunication Network
NCAR	National Centre for Atmospheric Research
NESDIS	National Environmental Satellite, Data and Information Service
NMC	National Meteorological Centre
NMHS	National Meteorological and Hydrological Service
NMS	National Meteorological or Hydrometeorological Service
NOAA	National Oceanic and Atmospheric Administration
NWP	Numerical Weather Prediction
OOPC	Ocean Observations Panel for Climate
OPAG	Open Programme Area Group
OSE	Observing System Experiment
PUMA	Preparation for the Use of Meteosat Second Generation in Africa
PWS	Public Weather Services

QMF	Quality Management Framework
QMS	Quality Management System
QPF	Quantitative Precipitation Forecasting
RA	Regional Association
RANET	Radio and Internet
RARS	ATOVS Retransmission Service
RCC	Regional Climate Centre
RCD	Regional and Technical Cooperation Activities for Development
RCOF	Regional Climate Outlook Forum
RIC	Regional Instrument Centre
RMTC	Regional Meteorological Training Centre
RSMC	Regional Specialized Meteorological Centre
7LTP	Seventh WMO Long-term Plan
6LTP	Sixth WMO Long-term Plan
SADIS	Satellite Distribution System for Information Relating to Air Navigation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SBSTTA	Standing Body on Scientific, Technical and Technological Advice
SCHOTI	Standing Conference of Heads of Training Institutions of National Meteorological Services
SES	Single European Sky
SIDS	Small Island Developing States
START	System for Analysis, Research and Training
SVS	Standardized Verification System
SWIC	Severe Weather Information Centre
TCP	Tropical Cyclone Programme
TEAP	Technology and Economic Assessment Panel
THORPEX	Observing System Research and Predictability Experiment
TIGGE	THORPEX Interactive Grand Global Ensemble
TIROS	Television Infrared Observation Satellite
UAE	United Arab Emirates
UNCCD	United Nations Convention to Combat Desertification
UNDESD	United Nations Decade of Education for Sustainable Development
UNDP	United Nations Development Programme
UN/ECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UN/ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UN/OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UPU	Universal Postal Union
VARG	Vulnerability and Adaptation Resource Group
VCP	Voluntary Cooperation Programme
VCP(F)	Voluntary Cooperation Fund
VOS	Voluntary Observing Ships
VSAT	Very Small Aperture Terminal
VSP	Voluntary Separation Programme
WAMIS	World Agrometeorological Information Service
WCAC	World Climate Applications and CLIPS
WCC-3	Third World Climate Conference
WCDMP	World Climate Data and Monitoring Programme
WCDR	World Conference on Disaster Reduction
WCIRP	World Climate Impact Assessment and Response Strategies Programme
WCP	World Climate Programme
WCRP	World Climate Research Programme
WDC	World Data Centre

WHO	World Health Organization
WIS	WMO Information System
WMO	World Meteorological Organization
WSIS	World Summit on the Information Society
WSSD	World Summit on Sustainable Development
WWIS	World Weather Information Service
WWRP	World Weather Research Programme
WWW	World Weather Watch
