

WORLD METEOROLOGICAL ORGANIZATION

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REGIONAL ASSOCIATION III  
(SOUTH AMERICA)

THIRTEENTH SESSION

QUITO, ECUADOR, 19 TO 26 SEPTEMBER 2001

XIII-RA III/PINK. 8  
(23.XI.2001)

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ITEM 8

Original: ENGLISH

## **HYDROLOGY AND WATER RESOURCES PROGRAMME (HWRP) - REGIONAL ASPECTS**

*(Submitted by the Chairman of Committee B, Mr. H. Oliva)*

**Reference:** XIII-RA III/Doc. 8

- Appendices:**
- A. Draft text for inclusion in the general summary of XIII-RA III
  - B. Draft Resolution 8/1 (XIII-RA III) - Working Group on Hydrology.

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### **ACTION PROPOSED**

It is recommended that the draft text in Appendix A be included in the general summary of the work of the session and the draft resolution in Appendix B be adopted.

**DRAFT TEXT FOR INCLUSION IN THE GENERAL SUMMARY OF XIII-RA III****8. HYDROLOGY AND WATER RESOURCES PROGRAMME (HWRP) - REGIONAL ASPECTS** (*agenda item 8*)**General**

8.1 The Association was pleased to note that, in general, the needs of Members in the Region were adequately reflected in the priority activities of WMO in hydrology and water resources given in WMO's Fifth Long-term Plan (5LTP). It examined those topics in the Plan which were new or require more emphasis and recommended that the following aspects, considered to be of particular interest to countries in South America, be taken into account as appropriate in the future work of the Working Group on Hydrology (WGH):

- (a) *Maintaining networks;*
- (b) *Expanding and modernizing networks;*
- (c) *Prediction and warning of critical conditions;*
- (d) *Water network (creation of links between the web sites of the institutions responsible for hydrology and water resources in the RA III countries.)*

8.2 The Association noted with appreciation the report of the chairperson of the WGH, Mr Roberto Coimbra (Brazil). It noted the progress made in carrying out studies of particular concern to Members through the four coordinators and eight rapporteurs of the subgroups who had been given specific assignments and were supported by other members of the WGH. In particular, it noted with interest the work carried out for the preparation of the reports, including project proposals, on:

	<b>Title</b>	<b>Coordinators – [Rapporteurs]</b>
(a)	Follow-up to the Action Plan of the Costa Rica Conference	A. Arcelus (Uruguay) [V. Pochat (Argentina), L. Rodriguez (Ecuador)]
(b)	HOMS and training	J. Narbona (Chile) [B. Denis (Paraguay), J. Yerren (Peru)]
(c)	El Niño	E. Colon (Venezuela), O. Umpierrez (Venezuela) [C. Cadier (France), M. Amatali (Surinam)]
(d)	Promotion, Dissemination and Commercialization	M. Garcia (Colombia), [J. Cortez (Bolivia), B. Nazarala (Chile)]

8.3 The Association congratulated the Working Group for its excellent work, and requested that maximum effort be made by all to implement the projects proposed and that the subgroups continue working with this objective. The Association noted that the support needed is now much higher than in the past when the Working Group concentrated its work in preparing reports. The Association endorsed and expressed its satisfaction with the new modality adopted. In relation to the Project on El Niño the Association was informed that the Regional Andean Programme for Risk Prevention and Mitigation (PREANDINO) from CAF is at present analysing its financial support. With respect to the results of the subgroup on training, the meeting was informed that the group not only has identified the needs of the members, but has also prepared a proposal to fulfill these needs. With respect to this, an offer from Chile to organize a course was received.

8.4 The Association was pleased to note that its WGH had made significant inputs to the activities within the Hydrology and Water Resources Programme (HWRP) and, as required by Congress, the Association's activities were well coordinated with those of CHy.

8.5 On the basis of the recommendations of the WGH, and taking into account the decisions of Thirteenth Congress, and the recommendations of the eleventh session of CHy, the Association decided to re-establish the group, open to all member of the Region. With respect to the group's membership, the Association requested its Members to ensure an adequate representation of the NHSs and other institutions working in the field of water. The Association also endorsed the future programme of work proposed by the WGH, which conformed closely to the 5LTP and included it in Resolution 8/1 (XIII-RA III). It further recommended that at least one session of the working group should be arranged during the intersessional period and that financial assistance be provided by WMO so that the core members could attend the session.

8.6 In accordance with General Regulation 167, the Association designated its Regional Hydrological Adviser (RHA) through its Resolution 8/1 (XIII-RAIII).

8.7 The Association noted the number of experts from the Region that were designated as members of CHy working groups.

### **Regional Implementation of the HWRP**

8.8 The Association was informed of the technical and administrative support that had been provided by the Secretariat to the six Working Groups on Hydrology of the regional associations in the implementation of their activities and in the organization of their sessions. It noted that, for some Associations, hydrology and water resources was one of the major areas of interest and concern. During their last sessions all the regional associations had re-established their WGHs which are open to experts of Members. The collective membership of these groups stands at 170 of which 44 have been assigned specific tasks as rapporteurs or sub-regional/sub-group coordinators. These groups had developed work programmes, which have become increasingly project oriented. The Association considered that due to the importance of this Programme for the Region, more time be dedicated during their meetings in future when appropriate, and that more support be given by WMO to activities in the field of hydrology and water resources. The Association was informed on the importance that is being given to hydrology and water resources in the process of preparation of the 6<sup>th</sup> Long Term Plan.

8.9 The Association was informed on the discussions held during CHy-XI in relation to organizational matters and that CHy had considered that the structure and the organization of WMO has an important impact on how it is viewed by its various constituent communities, of which the hydrological community is one. Also important is the corresponding organizational structure at national level, which can aid or hinder contacts and cooperation with WMO. WMO Regional and Sub-regional Offices, as presently constituted, do not include the hydrological expertise needed to serve the hydrology and water resources communities in the Regions, something that has been noted by the Executive Council in the past. The Association considered that it would be convenient to have a hydrologist working for the Regional Office.

8.10 The Association was pleased to note that a number of activities had been carried out in the Regions. These included a series of regional workshops to promote the use of the methodology contained in the WMO/UNESCO Publication "Water Resources Assessment – Handbook for review of National Capabilities". The Association noted that CHy-XI had considered this Handbook as a valuable contribution to WMO's regional activities.

8.11 The Association reviewed in particular the cooperation of WMO with UNESCO in matters concerning freshwater. It noted that this was based on an inter-secretariat agreement established in 1972 and focussed on activities in water resources assessment, the preparation of the International Glossary of Hydrology, WCP-Water and education and training in hydrology and water resources. The Association was informed on the outcome of the Fifth UNESCO/WMO International Conference on Hydrology held in Geneva in February 1999. In relation to cooperation between UNESCO and WMO at regional level, the Association recognized the difficulty posed by the different regional divisions used by the two organizations. However, a new opportunity for cooperation may soon be offered by the meetings of IHP National Committees that will be

convened in all UNESCO regions. The Association therefore recommended that WMO participate in these meetings whenever possible. The Association requested to strengthen the cooperation with UNESCO and OAS at regional level.

8.12 The Association noted that, following the recommendations of the Steering Committee for HOMS and the Fifth UNESCO/WMO Conference on Hydrology, an International Workshop on HOMS in the 21<sup>st</sup> Century, had been held in Geneva in September 1999. The Workshop developed an Implementation Plan for HOMS in the 21<sup>st</sup> Century, which was then reviewed and adopted by the Steering Committee for HOMS. The Plan, which clearly sets the guidelines for the further development and update of the System, has been distributed to all HOMS National Reference Centres (HNRCs).

8.13 The Association was informed that WMO has organized or co-sponsored a number of courses and workshops in hydrology and water resources during the past intersessional period which were of particular interest to the Region. These activities included: a course on sedimentology in fluvial streams (Montevideo, Uruguay, November 1997) and two courses on hydrometry and telemetry (Itajuba, Brazil, November/December 1998). Two of the three regular courses supported by WMO had participants from the Region, their most recent venues and dates being:

- Latin American Course on Operational Hydrology (Caracas, Venezuela, March 2000);
- Course on Hydrological Forecasting (Silver Springs, USA, October 2000).

8.14 The Association considered that support should continue to be given to the course in Caracas. Under item 9 additional information is provided on the proposed new modality foreseen for running it. The meeting was informed on the support given by the National Weather Service of the United States of America to participants in the Silver Springs course and that the next course is foreseen for 2002 with a duration of two weeks. Support in training in hydrology in the English speaking Caribbean was requested because of the importance of having reliable hydrological information for water resources management, in particular related to topics of interest to coastal states such as salt intrusion and sea level rise. In addition, the Association was informed on the plans of Brazil to organize a meeting on modernization of networks in April 2002, in which also the experiences of Argentina and Chile could be presented.

8.15 The Association was informed of the work carried out by the expert on Hydrological Models for Forecasting appointed by CHy-X with respect to the organization of a workshop related to a flash flood threshold pilot project, planned in coordination with representatives of the RA III and RA IV Working Groups on Hydrology. The Association was further informed that, during the last session of its WGH, the Hydrological Adviser to the Permanent Representative of Colombia offered to make the necessary arrangements to host the workshop in Bogota. The Association noted that the workshop is planned to take place from 16 to 20 October 2001). The Association requested the organizers of the Workshop to include in its programme a discussion on the project proposal on El Niño prepared by the Working Group.

8.16 The Association noted that WMO cosponsored a Symposium on Flood Forecasting for the Americas held in Brasilia, Brazil, from 16 to 19 November 1999.

8.17 The Association was informed on the development of various HYCOS components. The Association was informed that a new proposal on CARIB-HYCOS had been prepared in December 2000, and that there are first drafts on Amazon-HYCOS and on La Plata-HYCOS. The Association was informed on the installation of 115 automatic hydrometeorological stations and three radars in La Plata Basin that could be used for forecasting and hydrological warning. It was also informed on a similar project in the Amazon basin. The Association stressed the importance of defining the objectives of any hydrological network as the first step in its design and requested the working group to coordinate with the Working Group on Planning and Implementation of WWW in Region III.

8.18 The Association welcomed the adoption of Resolution 25 (Cg-XIII) – Exchange of Hydrological Data and Products, as the basis for increased cooperation between countries, noting that it could help in the growing need to assess and manage water resources on a regional basis

involving, in particular, rivers and other bodies of freshwater which extend across international borders.

8.19 The Association was informed on Resolution 1 (CHy-XI) - Working Groups and Experts of the Commission for Hydrology. The Association noted that the RA III WGH should coordinate its activities with these CHy bodies.

8.20 The Association was informed that WMO is cooperating with the Secretariat of the Convention to Combat Desertification (UNCCD) in the organization of a Workshop on Watershed Management for Latin America and the Caribbean. WMO has prepared a report on transboundary water resources management, which will be discussed during the Workshop. The Association was informed that its Regional Hydrological Adviser represented WMO in this workshop and that the report prepared by WMO was distributed to all participants

8.21 The Association requested WMO to prepare more material related to the World Water Day to be used to promote the activities in the field of water.

8.22 In relation to cooperation with non-governmental organizations, the Secretariat advised the Association of developments since its last session as regards the Global Water Partnership (GWP). The Association noted the new dimension that this body and others, such as the World Water Council, brought to international activities. The Association also noted that the Organization had maintained its long standing cooperation with the International Association of Hydrological Sciences (IAHS) and the International Organization for Standardization (ISO), and had recently strengthened its links with the International Association of Hydraulic Engineering and Research. The Association was informed on the GWP Associated Programme on Flood Management which started in August 2001 in the WMO Secretariat and from which the Secretariat is going to send very soon information to all PRs and HAs.

**Draft resolution**

**Res. 8/1 (XIII-RA III) - WORKING GROUP ON HYDROLOGY**

**THE REGIONAL ASSOCIATION FOR SOUTH AMERICA,**

**NOTING:**

- (1) The report of its Working Group on Hydrology;
- (2) Resolution 16 (Cg-XIII) - Hydrology and Water Resources Programme (HWRP);
- (3) Resolution 37 (Cg-XIII) – Terms of Reference of the Technical Commissions;
- (4) The Fifth WMO Long-term Plan, 2000-2009;
- (5)

**CONSIDERING:**

- (1) That Regional Association III plays an important and active role in conducting regional WMO activities relating to hydrology and water resources;
- (2) That HWRP is a priority programme for the Region;
- (3) That the Working Group on Hydrology of RA III has developed an important work on the framework of the various RA III working groups, participating actively during the last intersessional period;
- (4) That the Working Group on Hydrology proposed at its eighth session continuing with the same activities during the next intersessional period;

**DECIDES:**

- (1) To re-establish the Working Group on Hydrology with the following terms of reference:
  - (a) To provide assistance and advice to the president of the regional association on all issues relating to the regional aspects of HWRP;
  - (b) To determine the best way to meet the Region's needs in terms of hydrology and water resources;
  - (c) To carry out the HWRP-related activities listed in the annex to the resolution in close cooperation with the CHy experts;
  - (d) To cooperate with CHy and other WMO bodies on projects relating to hydrology and water resources;
  - (e) To collaborate on the creation and development of HYCOS components in RA III;
- (2) To invite all Members in the Region to designate experts in hydrology and water resources, preferably including the hydrological advisors to the Permanent Representatives and representatives of the HOMs national reference centers and of other bodies working in the field of water, to participate in the Working Group on an ongoing basis and attend its meetings. In selecting such participants, Members should take into account that they will have to devote time and effort to the Working Group's activities;

- (3) To appoint R. Coimbra (Brazil) as Regional Hydrological Advisor and chairperson of the working group and C. Arcelus (Uruguay) as vice-chairperson of the working group;
- (4) To appoint the following as members of the working group:
  - C. Damboriana (Argentina)
  - S. Gordillo (Argentina)
  - J. Cortes Ontiveros (Bolivia)
  - J. Narbona (Chile)
  - M. García (Colombia)
  - E. Heredia (Ecuador)
  - E. Cadier (France)
  - J. Jafferally (Guyana)
  - L.F. Chamorro (Paraguay)
  - B.A. Denis S. (Paraguay)
  - H. Vera Arevalos (Peru)
  - J. Yerrén Suarez (Peru)
  - M. Amatali (Suriname)
  - M.C. Aramburú (Uruguay)
  - M.L. Bernasconi (Uruguay)
  - C. Fermín (Venezuela)
  - O. Umpiérrez (Venezuela)
- (5) To establish sub-groups to carry out the work mentioned in the annex to this resolution;

**INVITES** the Regional Hydrological Adviser and chairperson of the working group:

- (1) To prepare detailed terms of reference for the established sub-groups, complementing the annex to the present resolution;
- (2) To propose to the president of RA III nominations for coordinators of the sub-groups;
- (3) To prepare an implementation plan and designate, in consultation with the president of the regional association, appropriate members from the working group to conduct activities within the sub-groups;
- (4) In conjunction with the coordinators of the sub-groups, to propose to the president of RA IV those who should become core members of the sub-groups;
- (5) To participate in EC sessions, if invited, representing the regional interests in relation to hydrology and water resources and to coordinate the WGH activities with CHy and other regional WGH;
- (6) To submit to the president of the regional association an annual report on 31 December every year and a final report no later than six months before the fourteenth session of RA III;

**REQUESTS** the Members concerned to give their full support to their country core members so that they may carry out the tasks entrusted to them;

**INVITES** the Secretary-General to provide assistance to hydrological activities in the Region, including seeking sources of finance and implementing the projects that could be prepared as part of the activities of the RA III Working Group on Hydrology.

## **ANNEX TO DRAFT RESOLUTION 8/1 (XIII-RA IV)**

### **1) Follow-up to the Action Plan of the Costa Rica Conference and other conferences, fora and meetings connected with water resources management**

#### **Water resources assessment**

To cooperate in organizing a workshop on comprehensive water resources assessment, including application of the Water Resources Assessment Handbook for Review of National Capabilities. The workshop's participants will be encouraged to apply the handbook in their own countries, at least in pilot form.

#### **Preparation of projects**

To identify and develop documents with project profiles connected to the principal themes of the Costa Rica Action Plan (emphasizing water and groundwater quality) and other similar events held at regional and global levels in the future. To follow up the profiles presented, introducing modifications where needed and cooperate in identifying sources of finance for their implementation.

### **2) Promotion, dissemination and commercialization**

To identify mechanisms for the implementation of hydrological, meteorological and water-resources documentation centres.

To cooperate in organizing a workshop on promotion, dissemination and commercialization of hydrometeorological data, products and services and water resources, including publication of the workshop's proceedings. On the basis of the results of the study and the work carried out during the preceding period, the workshop will be targeted and developed to emphasize the following:

- User needs;
- Institutional capacities for meeting those needs;
- Service modernization processes;
- Forms and means of dissemination and promotion; and
- Cost recovery schemes.

### **3) HOMS and Training**

To identify the real capacity of the Region's countries to offer training in hydrology and water resources management and to plan short practical courses and traineeships on specific subjects. In the first stage, particular importance will be attached to evaluating methodologies in order to optimize, modernize and redesign hydrological networks and data management.

To develop a regional education and training programme for professionals and technicians, in close cooperation with the WMO Hydrology and Water Resources Department and Education and Training Department.

To strengthen HOMS in the Region by publicizing it and encouraging the incorporation of new, regionally oriented elements.



4) **El Niño**

To identify each country's problems relating to the phenomenon and the actions taken to solve them.

To create a dedicated database, containing data for each country from a basic network selected for its quality and representativity. To that end, the solutions adopted for the various HYCOS components will be considered.

To activate links and information exchange mechanisms, which could include setting up and maintaining a web site and distributing hydrological and forecast bulletins.

The above will be achieved by establishing a technical group, to include, in addition to members of the working group, staff from organizations working in the field of hydrology.

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