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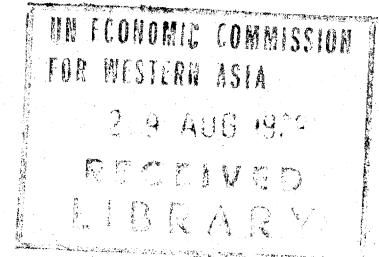
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ECONOMIC COMMISSION FOR WESTERN ASIA

Second Regional Water Meeting  
30 December 1978 - 3 January 1979  
Riyadh, Saudi Arabia



DRAFT REPORT OF ECWA'S SECOND REGIONAL  
WATER MEETING

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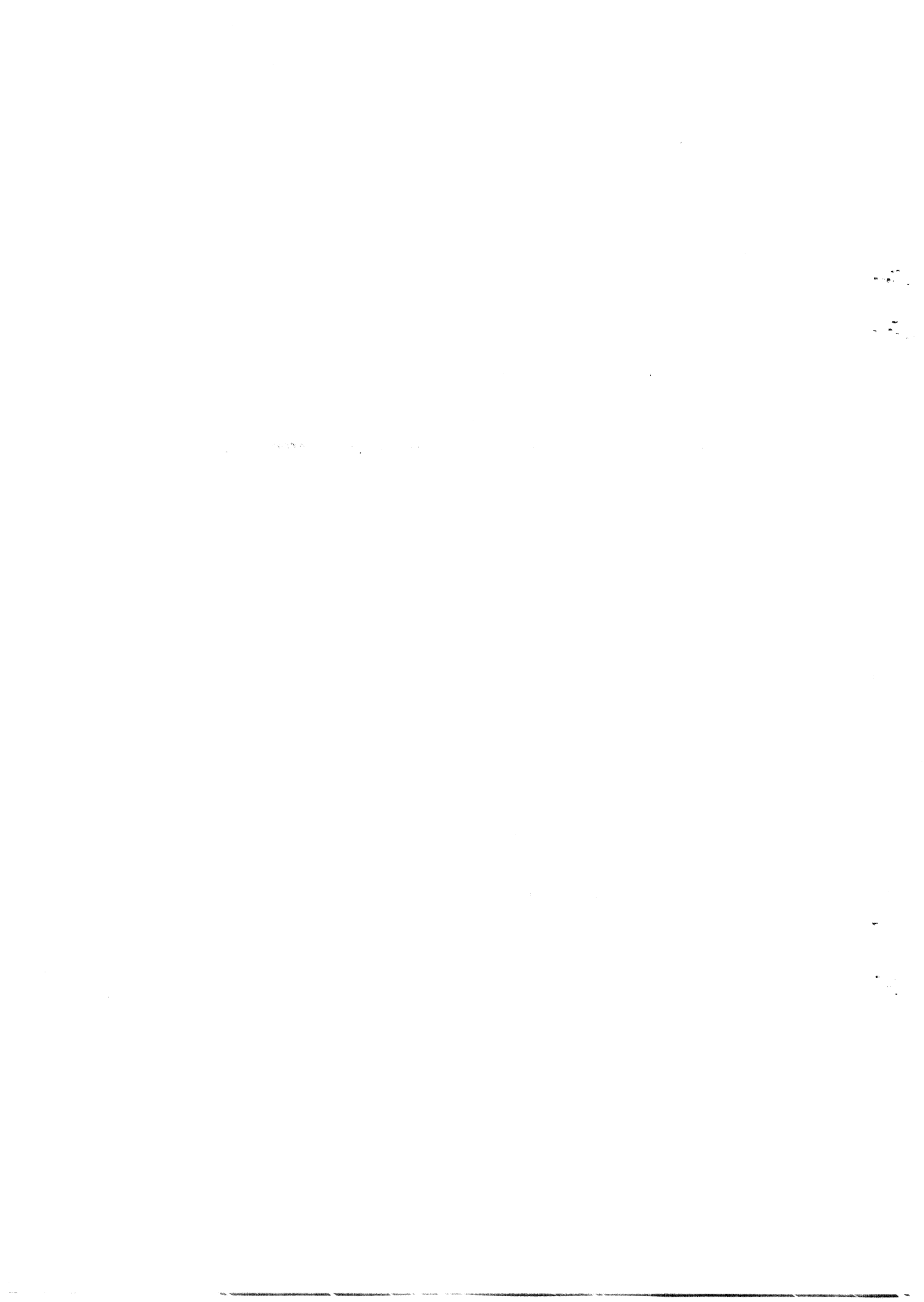
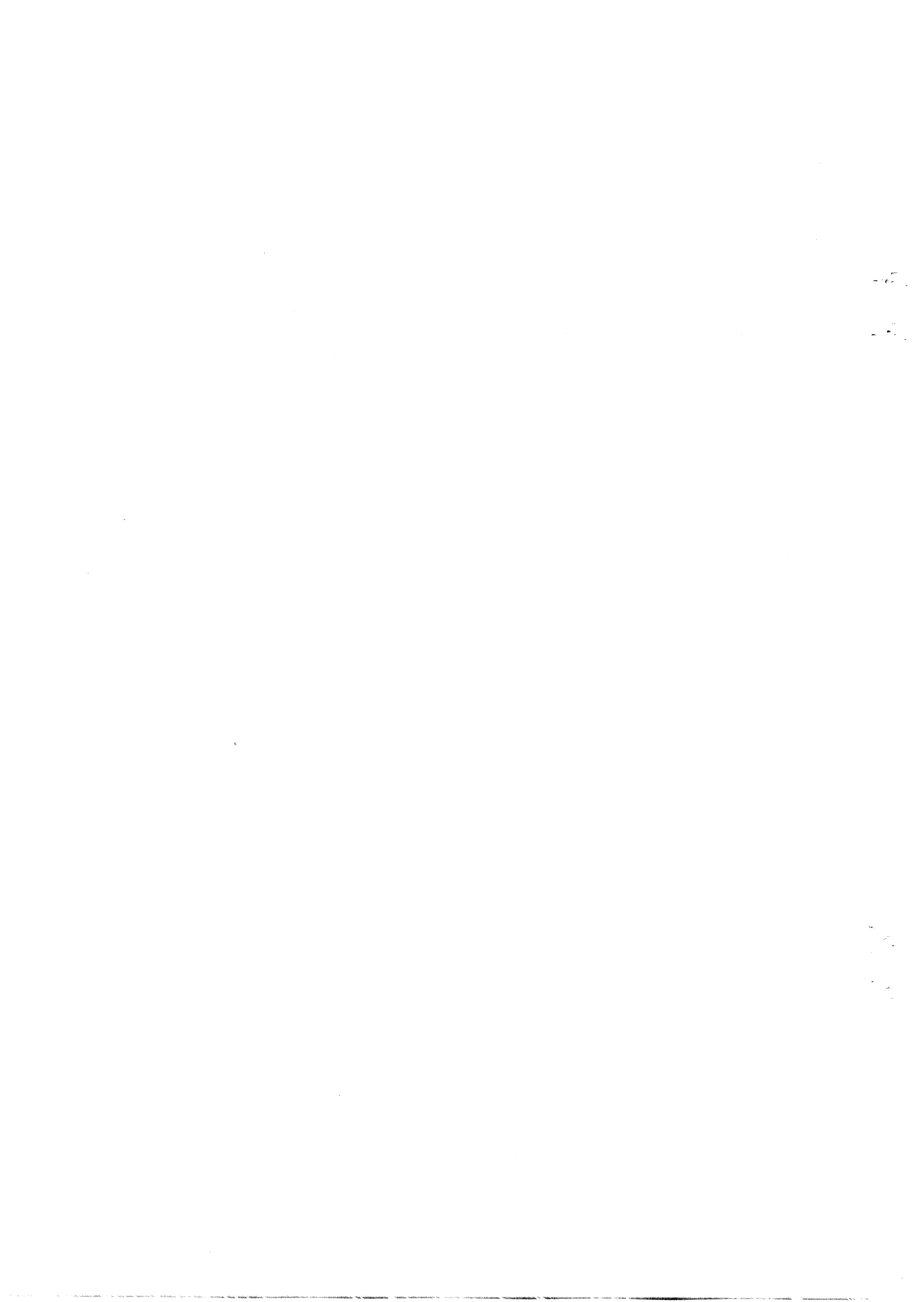


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## I. ORGANIZATION OF THE MEETING

1. The Second ECWA Regional Water Meeting was held in Riyadh, Saudi Arabia from 30 December 1978 to 3 January 1979.

### Attendance

2. The Meeting was attended by representatives of the following member countries: Bahrain, Democratic Yemen, Egypt, Iraq, Jordan, Lebanon, Oman, Palestine Liberation Organization, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen Arab Republic.

3. Observers from the following Arab countries, not members of the Commission, were present: Djibouti, Mauritania, Morocco, Somalia and Sudan.

4. The following Arab regional organizations were present at the Meeting: The Arab Centre for the Studies of Arid Zones and Dry Lands (ACSAD), the Arab Fund for Economic and Social Development, the Arab League Educational, Cultural and Scientific Organization (ALECSO), the Islamic Development Bank and the Secretariat of the Conference of Ministers of Agriculture for the Gulf Countries and the Arabian Peninsula.

5. The following United Nations Organizations were represented: The United Nations Department of International Economic and Social Affairs (UNDIESA), United Nations Department for Technical Co-operation for Development (UNDTCD), International Labor Organisation (ILO), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Fund for Population Activities (UNFPA), United Nations Children's Fund (UNICEF), World Health Organization (WHO) and World Meteorological Organization (WMO).

6. The list of participants is given in Annex I.

### Opening Statements

7. His Excellency Dr. Abdul-Rahman Abdul-Aziz Al Asheikh, Minister of Agriculture and Water, Kingdom of Saudi Arabia, opened the meeting. After welcoming the participants, the Minister stressed the important role of water resources in the development of nations and urged the Meeting to adopt a limited but well-defined number of recommendations which could constitute the starting point for any regional co-operative effort in this field. His Excellency the Minister

referred also to the importance of the optimal use of water for household, industrial, agricultural and other purposes. His Excellency Dr. Abdul-Rahman Abdul-Aziz Al Asheikh concluded his statement ascertaining the readiness of the Kingdom to support existing modalities of co-operation among Arab countries in agricultural and water policies, including the convening of regional conferences in water related fields. (The full text of the statement is given in Annex II).

8. Mr. Abdullah Mohamed Al Ghulaika, Deputy Minister for Water Affairs, Ministry of Agriculture and Water, Saudi Arabia, emphasized in his statement the link between water consumption and the rapid economic and social development of the region. He further indicated that the provision of the Kingdom's future water needs, would be met mainly by raising the standard of water management, the development and improvement of water resources, the conservation of groundwater reservoirs and the efficiency of water utilization. He also mentioned that the Ministry had undertaken a number of general studies on the basis of which a well-defined programme for the conduct of further detailed studies was prepared. The Ministry, he added, had also drawn up a programme for covering the Kingdom with a concentrated network of hydrometeorological stations. The Ministry was likewise monitoring the water resources of the Kingdom in order to determine the extent of the impact of development and consumption on these resources. Mr. Ghulaika referred also to the activities of and the studies prepared by the Ministry, aimed at supplying all the cities and villages of the Kingdom with drinking water. The efforts of the Ministry in promoting and strengthening the water and agricultural sectors were complemented by the work of a number of other governmental organizations and institutions. He concluded by hoping that this Meeting would take further steps towards co-ordinating efforts, exchanging relevant information and strengthening co-operation among Arab countries for the development of this vital sector. (The full text of the statement is given in Annex III).

9. Mr. Mohammed Said Al-Attar, Executive Secretary of ECWA opened his address by expressing his deep gratitude and sincere appreciation to the Government of the Kingdom of Saudi Arabia for hosting the Second Regional Water Meeting and welcomed the delegates and observers who kindly accepted the invitation to attend this Meeting. The Executive Secretary indicated that the present Meeting was convened as a follow-up to and implementation of the resolutions and recommendations of the United Nations Water Conference and in response to resolutions 2115 (LXIII) and 2121 (LXIII) of the Economic and Social Council wherein the Council called upon the regional commissions to hold such meetings and requested the regional commissions to strengthen their capabilities to play a "central role" in the implementation of the Mar del Plata Action Plan.

Mr. Al-Attar enumerated a number of reasons for the ever-growing water shortage in the region, mainly caused by rapid agricultural and industrial expansion, rapid population increase and growing urbanization, the general absence of national planning and of well designed policies in the water field, lack of awareness of the need for rational management, conservation and development of water resources, the absence in most cases of national bodies for co-ordinating water activities and the limited efforts so far taken in technical co-operation among member countries. He also emphasised in his statement some important topics such as adopting measures for assessing water resources, preparation for the International Drinking Water Supply and Sanitation Decade, increasing efficiency in agricultural water use, development of human resources and training manpower in the water sector, establishment of specialized training institutes and the strengthening of technical co-operation among developing countries in water-related fields at the subregional, regional and international levels.

In closing, Mr. Al-Attar referred to the proposal to establish a Water Resources Council which had been adopted by the First Regional Water Meeting held in Baghdad in 1976 and to the decision to this effect by the Commission in resolution 39 adopted at its 4th session in Amman in April 1977. He called upon the meeting to support the establishment of this Council which was expected to constitute an appropriate mechanism for the exchange of information, co-ordination of research and formulation of plans aimed at the optimal utilization of water resources. (The full text of the statement is given in Annex IV).

#### Election of Officers

10. The Meeting unanimously elected Mr. Moustafa Nouri (Saudi Arabia) as chairman, Dr. Mohammad Noureldine Al-Rifai (Syrian Arab Republic) as deputy chairman and Mr. Mustafa Bin Mukhtar Bin Ali (Sultanate of Oman) as Rapporteur.

#### Agenda

11. The Meeting adopted the following agenda:

- (1) Opening of the Meeting
- (2) Election of officers
- (3) Adoption of the agenda and organization of the work of the Meeting

- (4) Discussion of the basic items:
  - (4.1) Action taken by the member countries in the light of the United Nations Water Conference and the First Regional Water Meeting (Baghdad)
  - (4.2) Establishment of a Regional Water Resources Council
  - (4.3) Manpower situation and requirements in the water sector
  - (4.4) Community water supply and the sanitation situation
  - (4.5) Agricultural water use situation
  - (4.6) Strengthening technical co-operation among developing countries in the water field at subregional, regional and interregional levels
  - (4.7) Other special reports:
    - (a) Projection of water demands for ECWA countries by the year 2000;
    - (b) Assessment of water resources.
- (5) Adoption of the report of the Meeting
- (6) Closure of the Meeting.



II. ACTION TAKEN BY THE MEMBER COUNTRIES IN THE  
LIGHT OF THE UNITED NATIONS WATER CONFERENCE  
AND THE FIRST REGIONAL WATER MEETING (BAGHDAD)  
(Agenda item 4.1)

12. Following the introduction by the ECWA secretariat of the working document E/ECWA/NR/CONF.3/WP.1 and background documents E/ECWA/NR/CONF.3/2 and E/CONF.70/29, representatives of several countries made additional statements as indicated below outlining the opportunities, needs and problems encountered in their respective countries.

13. The head of the delegation of the Arab Republic of Egypt reported on a new strategy regarding the use and development of all national water resources. Beginning in 1978, a National Water Management Project was initiated with the objective of improving social and economic conditions for the farmers through better on-farm management and more efficient water use. The year 2000 served as a target for improving and upgrading all irrigation systems in the country. Problems of misuse, outdated methods, salinity and waterlogging, pollution management and conveyance and farm losses were being considered. It was pointed out that planners were now also focusing on new methods of collecting and storing water, improving production and productivity and instituting water laws with the aim of using pricing and regulations to increase economic efficiency. New research and specialized training and education programmes were also under way.

14. The head of the Iraqi Delegation revealed the genuine and determined interest of his Government in implementing the recommendations and resolutions of the United Nations Water Conference on the development of water resources in Iraq. Assessment of water resources covering most of the country was expected to be completed by 1981. Improvement of water use efficiency for all purposes, as well as water quality had been undertaken successfully by Iraq. It was indicated that Iraq intended to meet its projected water requirements in the different sectors by the year 1995 and that plans were under way to strengthen the existing universities and to increase the number of educational centres. It was also stated that new water legislation, laws and regulations, had recently been enacted. Concerning regional technical co-operation in the water field, the delegation of Iraq emphasized implementation of the recommendations adopted by the Baghdad meeting and those of the United Nations Water Conference. It was further pointed out that Iraq desired to co-operate in the establishment of joint committees with countries sharing common water resources whenever appropriate.

15. The head of the delegation of Jordan stated that among the concrete steps taken by the Government as a follow-up action to the United Nations Water Conference was the approval by the government of the proposal to establish a Supreme Water Council and a Central Water Authority. These new bodies would be responsible for co-ordinating in a centralized manner the work of the various national organizations concerned with water, including the Natural Resources Authority, the Water Supply Corporation, the Jordan Valley Authority and the Amman Water Supply and Sewerage Authority. The New Authority would be the executive arm of the Council, fully responsible for all matters concerning the development and management of water resources. The terms of reference of the Council also included preparation of short-term and long-term national water plans and the resolution of any conflicts that might arise among competing bodies. It was also pointed out that a National Water Symposium had been held in Amman in 1978. The Symposium adopted several recommendations related to assessment, planning, management and development of water resources. The statement was concluded by putting forward a proposal to constitute a team of experts under the auspices of ECWA to provide member countries at their request with technical services as might be needed on specific problems in the water field. The team or a part thereof as needed would be expected to stay long enough in any one country to carry out such projects adequately. The ECWA secretariat explained that a similar proposal was suggested under Section III (e) of the working paper (E/ECWA/NR/CONF.3/WP.2) wherein the establishment of a committee for professional services and consultants, within the organizational set-up of the proposed Regional Water Council, was recommended to provide such services. The secretariat also expressed its readiness within its limited resources to make these services available to member States.

16. The head of the Omani delegation stated that one of the main achievements of his country was the establishment of a National Water Resources Council to co-ordinate the activities of all bodies concerned with water. A first water master plan for the country was drafted. Manpower training programmes, strengthening of water resources authorities, computerization of water data and legislation of new water laws were undertaken. Public awareness regarding the use and management of water resources was being enhanced through various means, including the mass media.

17. The head of the Qatari delegation indicated that a National Committee had been established for the purpose of developing and managing land and water resources. This committee was carrying out research work with the aim of developing an integrated plan for the development and management of water resources for all purposes. At present, Qatar is training manpower in the field of water resources, improving ways of utilizing water and exchanging information and technical co-operation with neighbouring countries.

18. The head of the delegation of the United Arab Emirates stated that an assessment of water resources for the country was carried out in 1968. A survey of water needs for agriculture was made in 1977. The misuse of water for agriculture and domestic water supply was often experienced in the country. It was pointed out that, at present, the United Arab Emirates was dealing with the improvement of irrigation by adopting more modern methods so as to cover more land. Indication was given that the country was planning to unify all bodies concerned with water.

19. The head of the Saudi delegation mentioned that steps had been initiated to prepare a national water master plan and that a working team had been organized to prepare and supervise work for this purpose. It was stated that a water data bank had already been established and that work on assessment of water resources as well as water demand studies had begun. As a result of these activities it was expected that a new water legislation would be promulgated. Other projects such as desalination and treatment of waste water and its reuse continued to be of major interest. It was stated that Saudi Arabia co-operated in programmes of information exchange with neighbouring countries and existing organizations in the region.

20. The head of the Syrian delegation urged the meeting to adopt specific, well defined and operational recommendations. He also outlined the activities of Syria in implementing the Mar del Plata Action Plan. It was pointed out in this respect that work on a water basin project had been started as early as 1976. The project aimed at: Laying out a base for water resource documentation, training of manpower at various levels, planning for multipurpose use of water, making available advanced water-related equipment, reformulation of policy and legislation, strengthening and unifying water management activities, and improving water use efficiency.

21. The head of the delegation of Democratic Yemen stated that hydrogeological investigations of the main wadies in the country were under way, and that as a part of the Government's general policy, specific studies were being carried out for developing and managing the resources of these wadies. The country was also planning to undertake a project to compile a national water resources map. It was also stated that water resource monitoring programmes had been established, that efforts were being made to improve the efficiency of water use in irrigation, and that plans and projects were under way to provide water to the population, subject to financial constraints. With regard to legislation and management, it was indicated that the Government planned to centralize its various institutions concerned with water.

22. The head of the Lebanese delegation indicated that the establishment of hydrometeorological stations in Lebanon dated back to the 19th century. However, the thrust of the activity came in the early nineteen-fifties, when networks were established in all strategic points in the country. He further pointed out that Lebanon projected its water demands every 25 years. However, it had been found that the results were not that accurate, and that these projections should be reviewed occasionally. He also stated that the water policy in Lebanon was based on the premise that first and foremost all domestic and industrial needs should be satisfied, and that an effort should be made to irrigate as much land as possible. Excess water was usually stored and groundwater recharged.

### Recommendations

23. After considering section IV of the working document E/ECWA/NR/CONF.3/WP.1, the Meeting recommended:

- (a) That efforts continue for providing an accurate assessment of water resources in the region. That, where such efforts were not under way or were lagging, renewed emphasis be placed on this activity and all relative phases, including establishment of suitable central agencies, strengthening of data collection systems, systematic procedures for processing such data, standardization of measurement techniques and instrumentation and automation of stations
- (b) That actions to measure and project demand be given top priority since accurate water use data were of vital importance to future planning. Projections for future demand must be based upon accurate and factual data to be of any value. That, based upon such data, projections then be made for each country of the region for at least 25 years in the future
- (c) That measures be continued to increase efficiency in the fields of municipal, industrial and agricultural water use. That municipal metering, the scale of charges and proper maintenance be given high priority in each country. That industrial technologies be encouraged which consume smaller quantities of water or reuse it. That efficiency of delivery systems for agricultural purposes be increased through better maintenance and improved methods of delivery and application of water

- (d) That institutional changes be made to centralize water-related matters at governmental level, through formation of central water authorities, national water committees and through legal and administrative changes. That assistance be provided at regional levels in this undertaking
- (e) That efforts to develop national water policies be accelerated in each country of the region. That assistance be provided from the regional level in this undertaking
- (f) That the review and examination of legislation, rules customs, ordinances and decrees be given high priority in each country and, as a result of such review, that suitable legislation be enacted as needed
- (g) That emphasis continue to be given to public information and participation in water-related matters in those countries having such a programme. In other countries, that high priority be given to establishing such a programme. That co-ordination be provided at the regional level to assist in implementing new programmes and in improving existing programmes
- (h) That top priority be given to programmes dealing with education, training and research in each country of the region. The training of manpower, both professional and technical, is an urgent matter in all countries of the region. It is further recommended that research be co-ordinated from an overall regional standpoint and that research findings be disseminated throughout the region.

III. ESTABLISHMENT OF A REGIONAL WATER RESOURCES COUNCIL  
(Agenda item 4.2)

24. The ECWA secretariat introduced the working document (E/ECWA/NR/CONF.3/WP.2) which contained the proposal to establish a Regional Water Resources Council giving details of its composition and functions.
25. It was noted that the document was prepared as a follow-up to the recommendations of the First Regional Water Meeting held in Baghdad, Iraq, in 1976, subsequently endorsed by the United Nations Water Conference, the Economic and Social Council and the General Assembly. It was also prepared pursuant to operative paragraph 3 of resolution 39 (IV) of the Economic Commission for Western Asia, wherein the Executive Secretary of the Commission was requested to take the initiative in contacting member States in connexion with the proposal to establish the Council.
26. A representative of the United Nations (headquarters) informed the Meeting about the status of intergovernmental bodies concerned with water in the other regional commissions. It was pointed out that such bodies already existed in ECE (Committee on Water Problems) and ESCAP (Committee on Natural Resources). It was further stated that the African Regional Meeting (October 1978) adopted a proposal to establish an Intergovernmental Committee on Water Resources for Africa: similarly the Latin American Regional Meeting (October 1978) recommended that ECLA should directly assume concrete permanent responsibility for promoting the implementation of the Mar del Plata Action Plan.
27. Some delegations supported the proposed Regional Water Resources Council and stressed that there was a need for such a council to assist member countries in evaluating and planning the use of water resources, to provide teams of experts to assist those countries that lacked such expertise and also to co-ordinate at the regional level the water activities of the member States. Other delegations raised several points of major concern to this particular agenda item. Some felt that the establishment of the Council as proposed might result in an unnecessary duplication of efforts with other existing subregional and regional organizations.
28. After considerable deliberations at the plenary meeting and also at a closed meeting of the heads of delegations, the Meeting decided that the question of the establishment of the Council required further study in order to ensure that unnecessary duplication of efforts was minimized.

Resolution

29. The Meeting then adopted the resolution given below governing the follow-up steps to be taken regarding the Regional Water Resources Council:

ESTABLISHMENT OF A REGIONAL WATER RESOURCES COUNCIL

The ECWA Second Regional Water Meeting

Recalling the recommendation to establish a Regional Water Resources Council adopted at its First Regional Meeting<sup>1/</sup>,

Considering the resolutions and recommendations of the United Nations Water Conference, which constitute the Mar del Plata Action Plan<sup>2/</sup>,

Noting that the Conference requested the regional commissions to "play a central role in the promotion of intergovernmental co-operation" in their respective regions, as a follow-up to the Plan, and specifically recommended in resolution VIII thereof that they should, inter alia, "assign specific responsibility on water to an existing intergovernmental committee within the regional commissions or, if necessary, create a new one and establish or strengthen, as appropriate, the secretariat units of the commissions dealing with water, which would serve as the secretariat of the intergovernmental committee referred to in this subparagraph",

Bearing in mind that the General Assembly, in its Resolution 32/197, on the restructuring of the economic and social sectors of the United Nations system, recommended that "the regional commissions should exercise team leadership and responsibility for co-ordination and co-operation at the regional level",

Recalling resolution 39 (IV) of ECWA concerning regional co-operation in the field of water resources development,

Convinced that it is desirable to make maximum use of the existing regional and subregional intergovernmental machinery and the available resources, in order to avoid the dispersal of effort and the proliferation of agencies, as well as to ensure economy of resources and efficiency in the action to be carried out,

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<sup>1/</sup> E/ECWA/NR/CONF.3/2

<sup>2/</sup> E/CONF.70/29

Concerned, at the same time, that the terms of reference of the proposed Water Resources Council may imply certain unnecessary duplication of effort with existing regional and subregional organizations dealing with water resources development and management,

1. Decides that an ad hoc Intergovernmental Committee be established from representatives of countries present at this Meeting, with ECWA working as its secretariat, in order to study with the countries concerned the possibility of establishing a Regional Water Resources Council, considering the desirability of guaranteeing the effectiveness of the Council while at the same time avoiding duplication and ensuring arrangements to enhance co-operation with existing organizations in the region;
2. Further decides that the Committee shall be composed of representatives from five countries, namely Jordan, Lebanon, Saudi Arabia, Syria and the United Arab Emirates, and shall carry out the above recommendations and prepare a report which shall be presented to a special meeting to be convened within a maximum of one year, to which all member States of ECWA shall be invited;
3. Requests the Executive Secretary of ECWA to provide the necessary secretariat support services to the Committee within its available resources.

#### Recommendations

30. It was recommended that ECWA formulate its requirements for additional resources in order to be able to intensify its work in the field of water and enlarge inter-country co-operation within the region as called for in resolution VIII of the Water Conference endorsed by General Assembly Resolution 32/158 and ECOSOC resolution 2121 (LXIII). This recommendation was also in line with the request of several delegations that a team of experts be constituted under the auspices of ECWA to provide member Governments with technical services, as and when needed, specifying that the team or some members of it, as appropriate, should stay sufficiently long in any one country to carry out such projects adequately.



IV. MANPOWER SITUATION AND REQUIREMENTS IN THE WATER SECTOR

(Agenda item 4.3)

31. Discussion of this topic was based on documents E/ECWA/NR/CONF.3/WP.3 and E/ECWA/NR/CONF.3/9 which were introduced by the secretariat.

32. The study revealed that there was an acute shortage of trained manpower in all areas of water resource development and that this situation existed at all levels. The study revealed also the need for a regional training institute.

33. Several delegations stressed the need for such an institute and one delegation suggested that one of the ways to meet this need was to convert an existing institution to serve the purpose of regional training. Another delegation stressed that those countries with limited means would particularly benefit from such a regional institute.

34. The Jordanian delegation stated that the Government of Jordan would be willing to serve as a host for such an institute and provide a piece of land as a site for it should the Meeting agree to set it up.

35. One delegation emphasized that the problem of the brain drain was an old one that could not be resolved by the present regional Meeting, that it was up to the governments to take at the national level the necessary measures to overcome this problem. The same delegation was also of the opinion that ECWA should review the curricula of the various institutions at all levels and recommend the necessary modifications based on the specific needs in water resources. The same delegation also suggested that ECWA should continue preparing periodic manpower surveys in the water resources field in the region and that the environmental aspects should also be covered in water resource studies.

36. A number of delegations stressed that there was no need for a new regional training institute and that the use of existing national training facilities in the different disciplines of water resource development, appropriately strengthened, might be preferable at this stage.

37. The delegation of another country mentioned that it was undertaking a manpower survey at the middle technician level using the methodology proposed in the ECWA study.

Recommendations

38. The Meeting adopted the following recommendations concerning Manpower Training and Education:

- (a) Ideally, every country should be in a position to conduct training on its professional and technical personnel. However, where such a need was small, the establishment of multinational training facilities was recommended for use of all the region;
- (b) Additional institutions of higher education appeared to be needed. More comprehensive water resource curricula also appeared to be needed in existing institutions;
- (c) Refresher courses for all technical levels were needed regularly. These might be on a national or regional basis;
- (d) More courses on computer use in water resource research and development needed to be introduced, as also the consideration and use of advanced training aids;
- (e) Governments should develop comprehensive training programmes for national engineers and scientists to allow experience to be gained in all fields of water resource investigation, planning design and management. Where foreign firms served as consultants, governments should, whenever possible, make provisions in their contracts for the training of national personnel;
- (f) Expatriates working in water-related positions within governments should have a primary responsibility for training nationals in their fields of competence;
- (g) Existing salary scales, promotion systems and incentives should be reviewed, taking into consideration the nature of the work in hardship cases and market conditions. Employees should be encouraged, through proper incentives and opportunities for advancement, to continue working in this technical field and to seek opportunities to improve their competence in it.
- (h) Full use should be made of existing facilities for the training of technicians in the region before establishing new ones. All countries should know of the existence of facilities and invitations should be issued for their use.

- (i) As a follow-up to the preliminary study by ECWA, the need existed for a further detailed assessment and evaluation on a country-by-country basis of all water related training programmes in the ECWA region. This should cover all existing universities and technical schools. Further detailed assessment should also be made for all such programmes planned for the future;
- (j) Manpower estimates, both professional and technical, should be an integral part of any National Resources Development Plan. Most countries have 5-year plans, or some schedule of overall planning. Every such plan should carry a strong recommendation for manpower training. Every plan should also include details on financial and other considerations necessary to meet training requirements;
- (h) An inventory of cadres who emigrate abroad should be drawn up and conditions that would encourage their return should be established;
- (l) Provision should be made of long-term scholarships for graduate study in subjects pertaining to water resource development;
- (m) The establishment of special training schools attached to colleges and schools or to national water development agencies should be considered on a permanent basis.

V. COMMUNITY WATER SUPPLY AND SANITATION SITUATION

(Agenda item 4.4)

39. The ECWA secretariat introduced document E/ECWA/NR/CONF.3/WP.4 which dealt with activities being carried out with reference to the recommendations of the Habitat and Water Conferences and WHO document E/ECWA/NR/CONF.3/4.

40. The document urged the countries of the region to commit themselves to provide the total population, and particularly the rural areas, with an adequate supply of water of acceptable quality within the next 10 years and set up programmes for implementation during the Drinking Water Supply and Sanitation Decade (1981-1990).

41. Some delegations expressed the view that more attention should be paid to rural areas but pointed out that implementation in such a short span of time is impractical due, among other things, to financial constraints.

42. Another delegation stated that its country was optimistic about being able to supply the total population with drinking water by the year 1990. This was being accomplished by one or another of the following means: Construction of storage dams, drilling of wells and desalination. He added that for the past five years wells have been drilled at the rate of 100 a year, some of which were as much as 2000 meters deep.

Recommendations

43. Concerning community water supply and sanitation and the launching of the Decade, the Meeting recommended that:

- (a) The target of HABITAT concerning community water supply and sanitation be adopted and vigorously pursued in the countries of the ECWA region
- (b) Specific action proposals, under the overall supervision of WHO and co-ordinated by ECWA, in consultation with competent organizations of the United Nations system, be established for each country in the region

- (c) Community water supply and waste disposal planning be co-ordinated with overall planning and economic development
- (d) Full use be made whenever possible of local resources, including manpower, in the planning and implementation of community water supply and waste disposal programmes
- (d) Priority be given to areas not having adequate community water and sanitation services, such as rural and low income groups.
- (f) Financing for community water and sanitation programmes reflect long-term needs as well as the urgency of short-term needs in each country
- (g) Low-interest loans and other incentives be provided to communities and other entities to promote planning and construction of projects
- (h) Assistance be provided in terms of well-drilling capability and other equipment where needed to implement programmes
- (i) Governmental infrastructures in each country be reviewed for community water supply and sanitation and new organizations or departments be established where needed for this purpose
- (j) Long-term financing capability for water supply and sanitation take place to ensure the planning and implementation of such services on a long-term basis
- (k) Transfer and application of technology in water supply and sanitation be encouraged among countries of the ECWA region
- (l) Pricing policies and other incentives be adopted, where needed, in order to promote efficient water use and reduction of water wastage.
- (m) In rural and remote areas low-cost individual water supply and sanitation systems be promoted
- (n) Programmes for health education be carried out hand in hand with water supply and sanitation development to heighten public awareness of health

- (o) Training programmes be established to meet all levels of manpower needs in the water supply and sanitation fields
- (p) Information and inventory systems for all phases of water supply and sanitation planning and development be established and maintained
- (q) Development and dissemination of information on new concepts in all phases of water supply and sanitation be encouraged
- (r) Regional and international organizations continue to take an active and co-ordinated role in providing assistance to all countries of the region in technical, financial, research, health education and demonstration projects, in cost reduction programmes and in the interchange of information programmes
- (s) The role of ECWA be strengthened in the region in the field of water supply and sanitation in order to provide the co-ordination needed between international and national programmes and plans of action.

## VI. AGRICULTURAL WATER USE SITUATION

(Agenda item 4.5)

44. The working paper on this topic (E/ECWA/NR/CONF.3/WP.5) was prepared by the ECWA secretariat in response to the recommendations of the Baghdad Regional Water Meeting and the phased Action Programme for Agriculture adopted by the United Nations Water Conference. It was based on the findings of field missions undertaken by ECWA experts in the region and on questionnaires designed for this purpose. The working paper considered the present use, sources and quality of agricultural water. Existing and contemplated plans for improving the efficiency of irrigation and for research programmes were discussed. Constraints and national policies, legislation and regulations to control water use in agriculture were also reviewed.

45. Several delegations provided supplementary and in some cases up-to-date statistical information and requested the secretariat to revise the table in the working paper accordingly. They also commented on programmes now under way in their countries concerning improvements in agricultural water use. It was also indicated that new methods, such as drip irrigation were proving successful in increasing production as well as in reducing water diversions.

46. One delegation suggested the grouping of the countries covered by the working paper on the basis of total area, area irrigated, available water and the population of the country concerned.

Recommendations

47. With respect to Agricultural water use, the meeting recommended that:

- (a) The recommendations and resolutions of the United Nations Water Conference concerning the improvement of the quality of water be emphasized and the countries concerned be urged to commit themselves to their implementation.
- (b) Inefficiency of agricultural water use due to losses in transit and unsuitable irrigation systems be discouraged
- (c) National policies, institutional arrangements and legislation be focussed on the goal of increasing both efficiency in water use and production levels
- (d) Research programmes be accelerated on the relationship of land and water use, with particular emphasis on improved cropping practices and efficiency in agricultural water use
- (e) The flow-back of drainage water into its original source be avoided so as to preserve water quality
- (f) Financial and manpower resources be provided for better water use and management practices
- (g) Appropriate pricing policies be adopted to encourage efficient water use
- (h) Public participation and information programmes be developed and implemented in the field of efficient water use and farm management
- (i) The economics of water use for agriculture be balanced with that of other uses in order that economic development in each country might proceed in a manner which would result in the greatest benefit to the entire country.



VII. STRENGTHENING TECHNICAL CO-OPERATION AMONG DEVELOPING COUNTRIES IN  
THE WATER FIELD AT SUBREGIONAL, REGIONAL AND INTERREGIONAL LEVELS

(Agenda item 4.6)

48. Among those recommendations endorsed by the United Nations Water Conference were proposals to improve technical co-operation among developing nations in the water field. The working paper, E/ECWA/NR/CONF.3/3, which was introduced by the ECWA secretariat was prepared as a follow-up action based upon information obtained from member countries through field missions.

49. The working paper covered the following items: Background, Improved Information Base, Sharing and Receiving Expert and Consultancy Services, Identification of Programmes That Can Be Accomplished Through Technical Co-operation, Languages and Means Used for Exchange, plus Summary, Conclusions and Recommendations.

50. Several delegations commented on the working paper. Most felt that technical co-operation on water related matters was of utmost importance to the nations of the region and stressed their willingness to co-operate in every way possible. The amendments proposed during the discussion were reflected in the recommendations given at the end of this section.

51. It was suggested by one delegation that ECWA prepare a list of names of competent experts and consulting firms working in the field of water in the region. The same delegation indicated a desire to have ECWA gather and disseminate information and papers prepared by member States related to various areas of research in the water field.

Recommendations

52. In relation to Technical Co-operation among Developing Countries (TCDC), the Meeting recommended that:

(a) The development of an adequate information base continue to receive priority so that each country would have a meaningful inventory of technical resources and so that exchange of information with others could proceed on an organized basis.

(b) The sharing of the results of research, education and training, continue to receive top priority in each country. Since no country in the ECWA region had such a programme adequate to all its needs, the finding of research should be disseminated to all who have common problems, and educational and training facilities should be shared with others of the region.

(c) Organizations be established at the regional level to oversee the entire field of technical cooperation among countries in the region. Such organizations should form task forces, or pilot projects, within the region or subregion whereby special problems may be attacked and knowledge gained might be disseminated to others of the region. These organizations **should be a part of the Regional Water Resources Council** if such a Council were approved.

(d) Countries co-operate in establishing a register of experts and consulting services having particular knowledge of water-related problems at subregional and regional levels to be called upon where and when required by member countries of the region. Every State should make a list of consultants in order to accomplish the desired objective.

(e) Identification of programmes for water resource development which may be achieved through technical co-operation be made in specific sectors such as water supply, irrigation, drainage, transbasin water resource development, groundwater development, legislation, education and training.

(f) Countries be encouraged to hold national, subregional and regional seminars, symposiums and training courses.

(g) It be affirmed that all countries sharing common water resources, take the initiative to apply the recommendations and resolutions adopted in this respect by the United Nations Water Conference.

VIII. PROJECTION OF WATER DEMANDS FOR ECWA  
COUNTRIES BY THE YEAR 2000

(Agenda item 4.7 (a) )

53. In presenting document E/ECWA/NR/CONF.3/8 on projection of water demands for the ECWA region by the year 2000, the ECWA secretariat pointed out that the results would have to be taken as preliminary and that caution was to be exercised when following this methodology. It was indicated that one of the problems was data limitation or the lack of data of good quality and data of a cross-sectional and time-series nature.

54. It was suggested during the discussions that, in addition to the improvement of data collection and quality, the methodology and assumption used in the ECWA study should be revised in order to refine the proposed model. In this connexion, one delegation supported ECWA's suggestion for holding a seminar on the methodology of water demands projections.

Recommendations

55. Concerning water demand projections, the following recommendations were adopted:

(a) Each country of the Region should carefully examine the data used in these projections and make the necessary adjustments.

As was indicated in the first chapter, all the data used in this study were compiled at the office. No data-collection missions were undertaken for this purpose. Only the countries themselves can verify the authenticity of the data at this time.

For example, the population projections of our consultant differ from those of the United Nations "World Population Prospects - 1973", and neither agrees with the published findings of the member States themselves, or their special consultants.

Similarly, FAO's projections of irrigated land are not in agreement with some of the figures given by governments at the United Nations Water Conference at Mar del Plata, Argentina, 1977.

We have reason to believe that inaccuracies exist in other categories of the data applied to the model.

(b) In view of the above and due to the fact that the projection of water demands is a dynamic process which fluctuates with the changes in national planning, economic growth, life style, and population distribution it is necessary that:

(i) Each country should establish a data gathering programme for determining water use in all fields. This would include an assessment of water used for municipal, industrial and rural domestic and agricultural purposes.

Municipal use should be determined as far as possible through customer metering. Industrial use should be determined by periodic surveys, updated as needed. Rural domestic use should be determined by periodic surveys, meters where possible, and other appropriate methods.

Agricultural use should be measured by gages and meters, with the responsibility on individual users to cooperate in obtaining use data.

Accurate and up-to-date records should be maintained on the amount of land irrigated in each country, with an indication of the nature of irrigation, whether perennial or supplemental.

(ii) Each country should establish a programme for collecting and assessing data on special problems in resource evaluation such as ground water recharge, environmental problems, coastal and marine problems and quality and extent of total surface and groundwater resources.

(iii) Each country should establish systematic procedures for collecting, compiling and publishing social and demographic data needed for the demand model. Such information should contain totals of population, number of people residing in cities. The number of people in rural areas and the educational level of the population connected to central water distribution systems in urban and rural areas should also be obtained. Such information should be obtained at periodic intervals in order to establish trends and growth patterns.

(iv) Each country should establish programmes for obtaining economic information needed for the water demand model. Information on gross national product, per capita income, industrial gross national product and agricultural production is needed. These data will also be useful in analysis of the economics and priority of use of water for various purposes.

All this is essential for arriving at meaningful projections.

(c) Water management strategies should be equally concerned with the management of demand as with the management of supply. So far, the most common response to water shortage is the expansion of supplies while the managing of demands is usually neglected. The rising cost of supplies in most parts of the world calls for a policy of planning wherein attention is focused on the actual needs of the people rather than the quantity of water as such.

(d) Finally, it should be pointed out that whether we are dealing with projections or any other aspect of water demand, the issue of water resource development is a matter of awareness, sound management and careful planning.

IX. ASSESSMENT OF WATER RESOURCES

(Agenda item 4.7 (b) )

56. The ECWA Secretariat presented document E/ECWA/NR/CONF.3/10 "Assessment of Water Resources", which was prepared jointly by WMO and UNESCO. The paper outlined proposals for the implementation of the resolution I of the United Nations Water Conference at the national, regional and global levels in order to assist countries in developing adequate programmes to assess their water resources.

57. The paper stated that common methodology for the assessment of water resources could be applied only in countries of similar physiographic characteristics. It outlined a common strategy in this respect, and proposed an international project to be implemented employing this strategy. The paper recommended implementing at least one of the proposed pilot studies in the region should governments request it.

58. One delegation stated that the needs of member countries for assessing their water resources could be met by formulating suitable projects which, if appropriate, may be carried out with the assistance of one or more competent organization(s) of the United Nations system.

X. ADOPTION OF THE REPORT OF THE MEETING

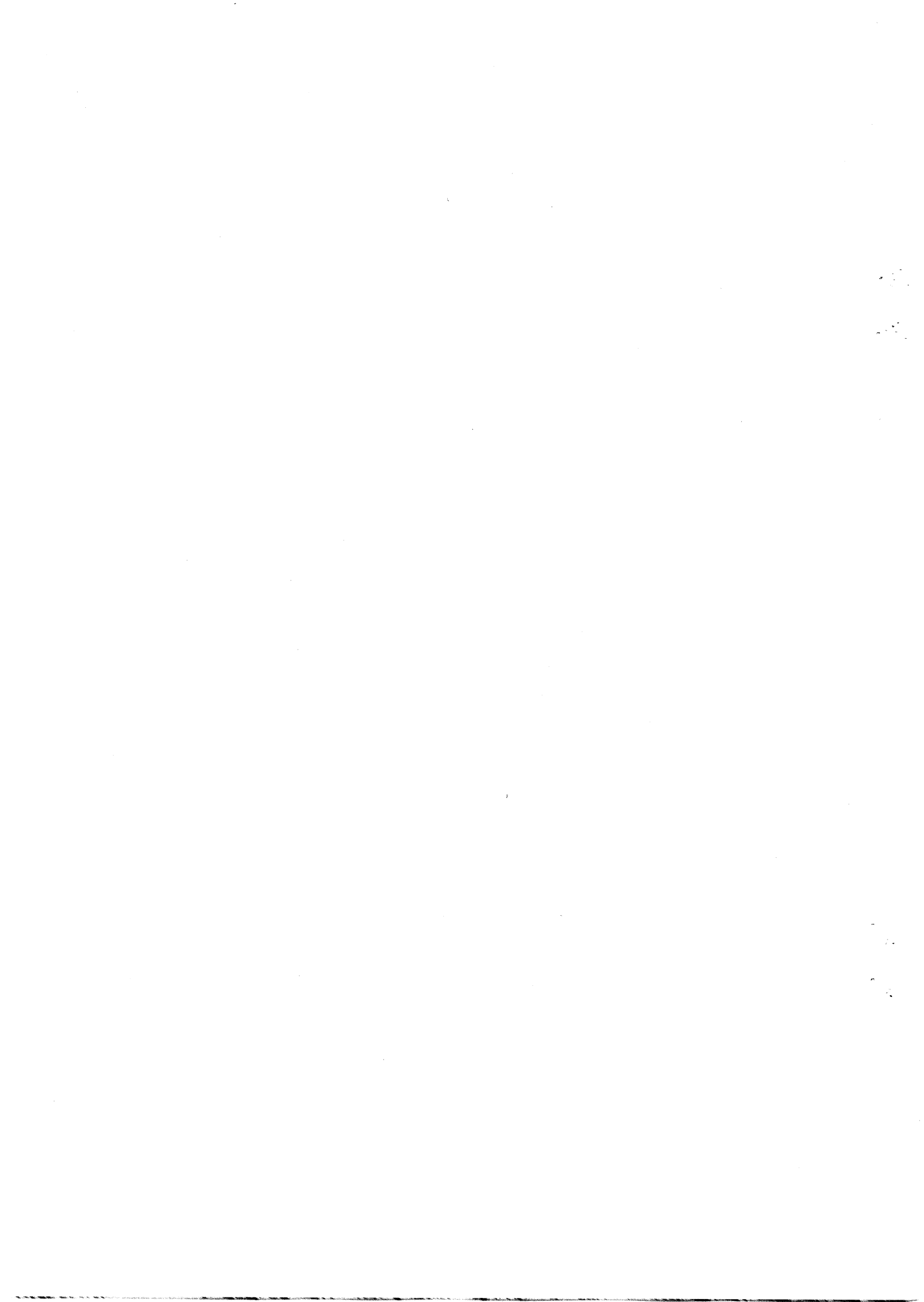
(Agenda item 5)

59. The Meeting adopted its report on Wednesday 3 January 1979.

XI. CLOSURE OF THE MEETING

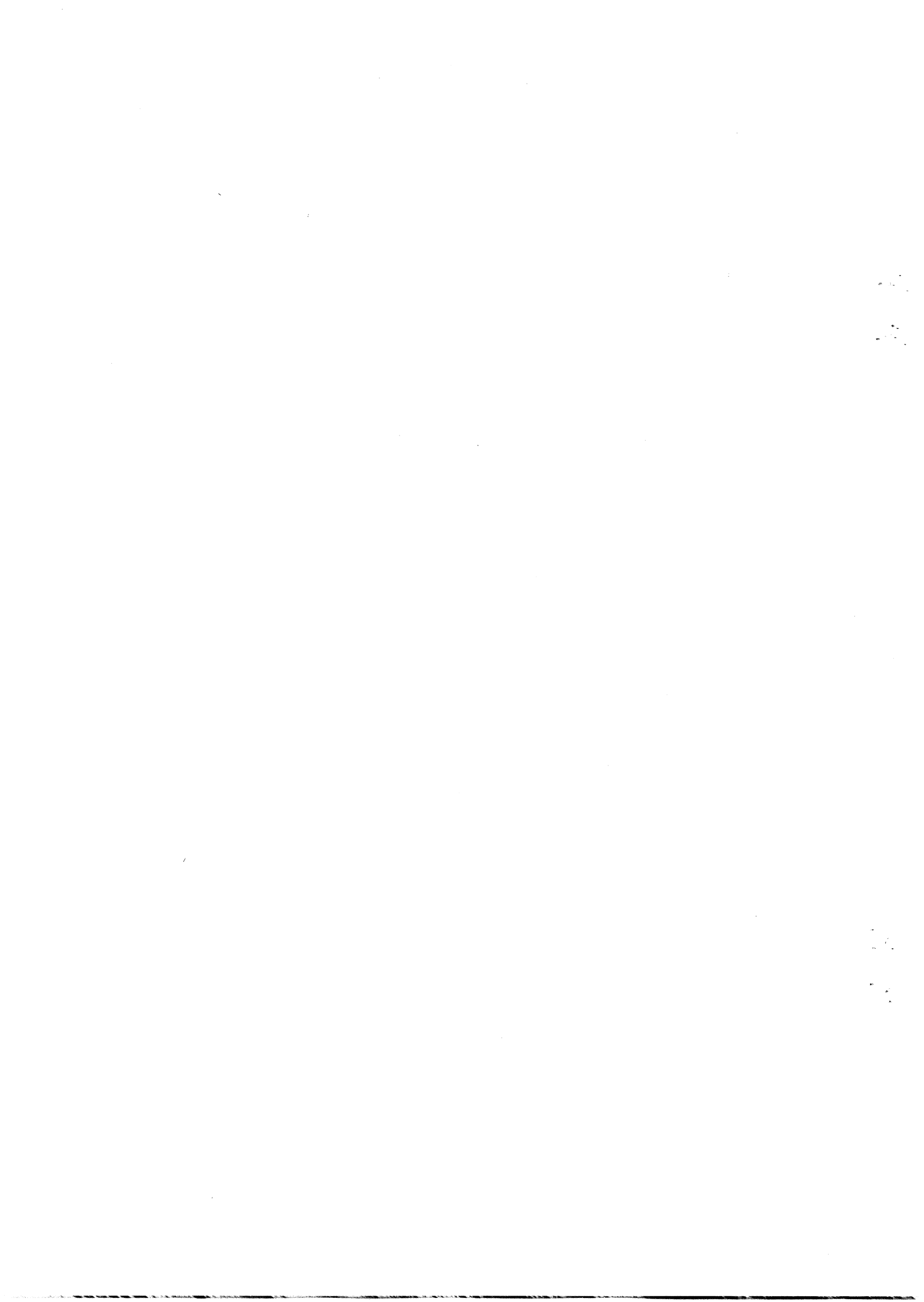
(Agenda item 6)

60.





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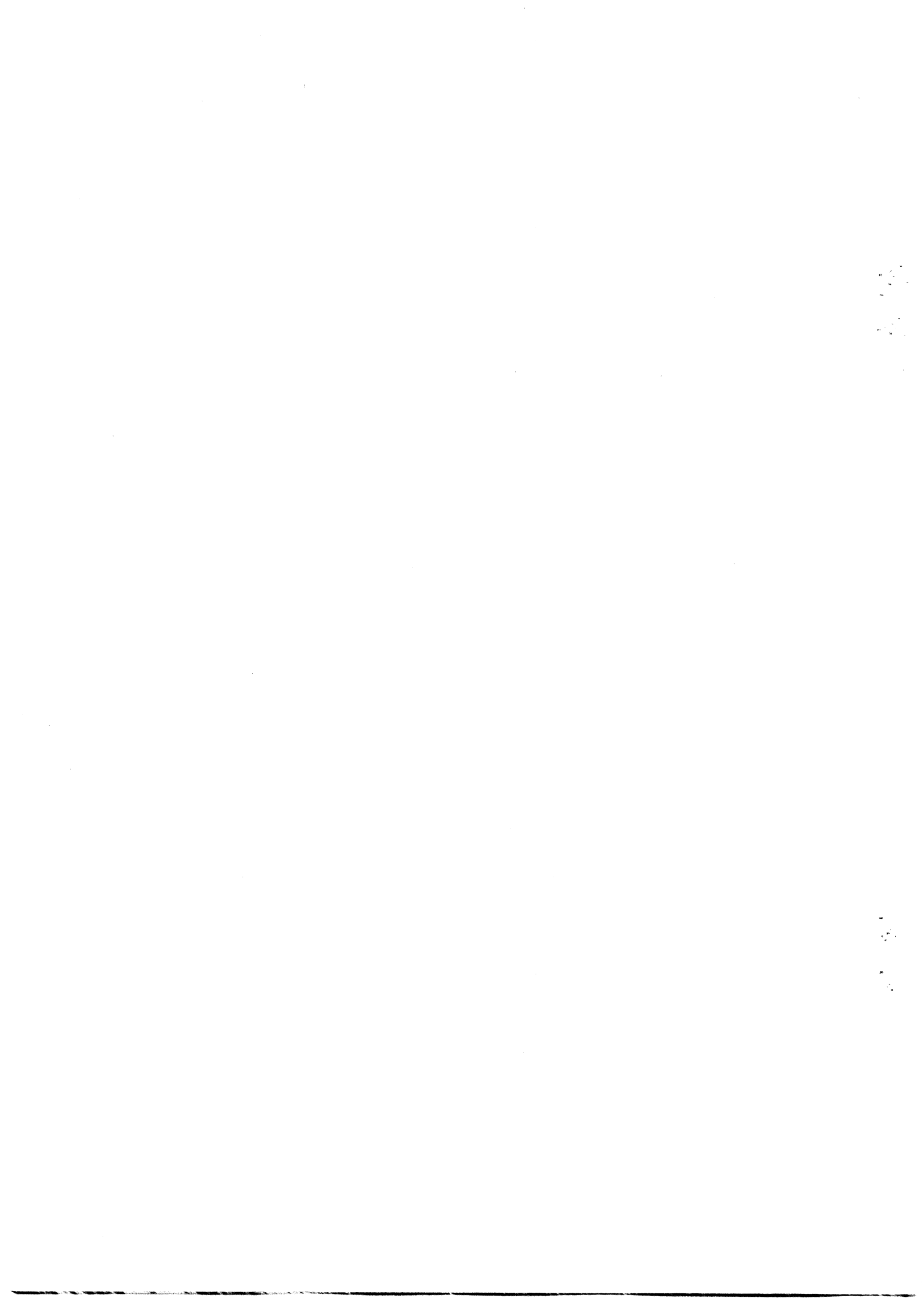
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Statement

by

H.E. Dr. Abdul-Rahman Abdul-Aziz Al Asheikh

Minister of Agriculture and Water

Kingdom of Saudi Arabia

at the opening session

of the

ECWA Second Regional Water Meeting

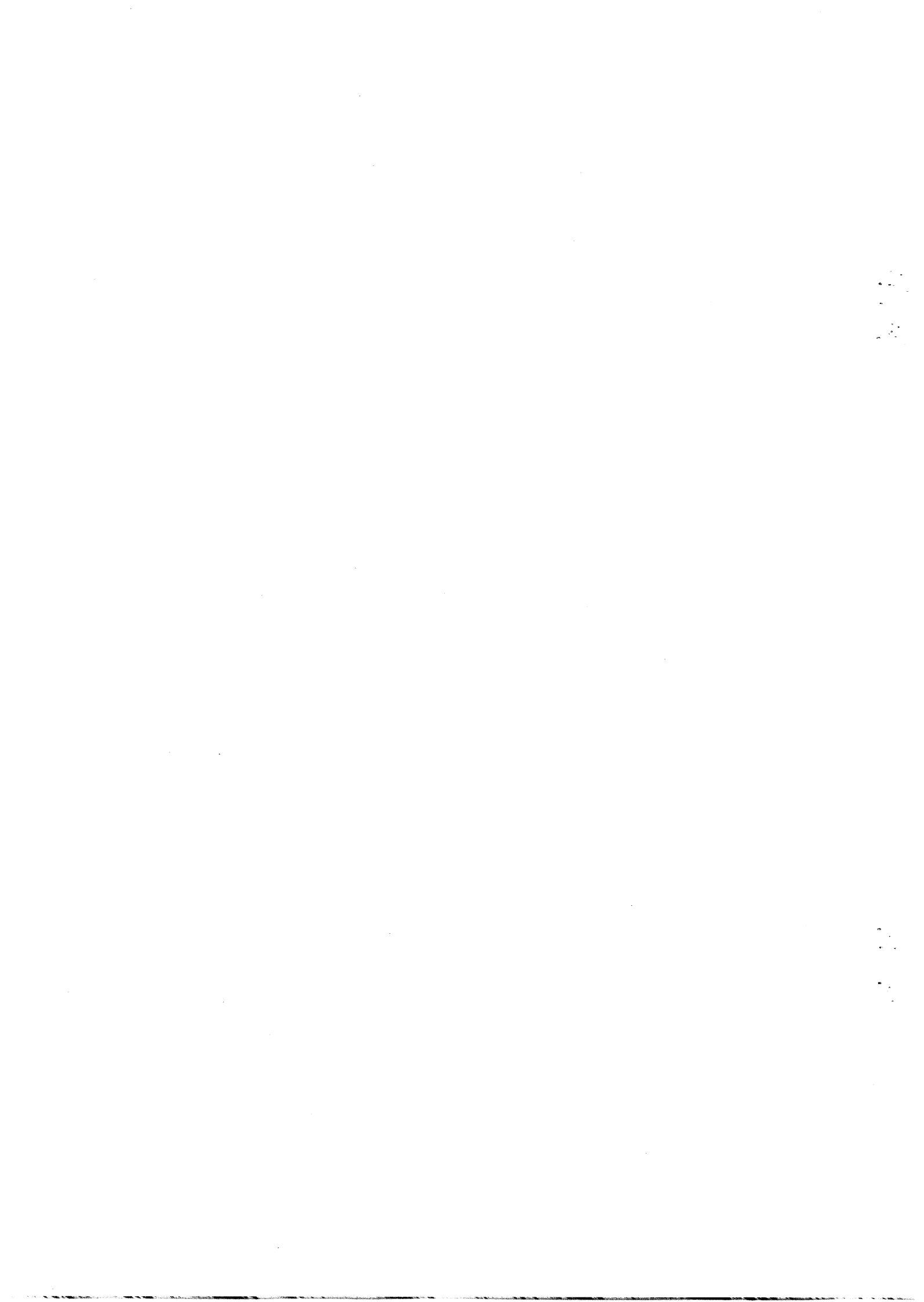
held at the

Main Auditorium

Hotel Riyadh Intercontinental

from 1 - 5 Safar 1399 A.H.

(30 December 1978 - 3 January 1979)



In the Name of God the Compassionate, the Merciful

"Praise be to God and peace be on His trusted Messenger and Prophet, Mohamed ben-Abdullah, and on his companions and on all who walk in the path of righteousness."

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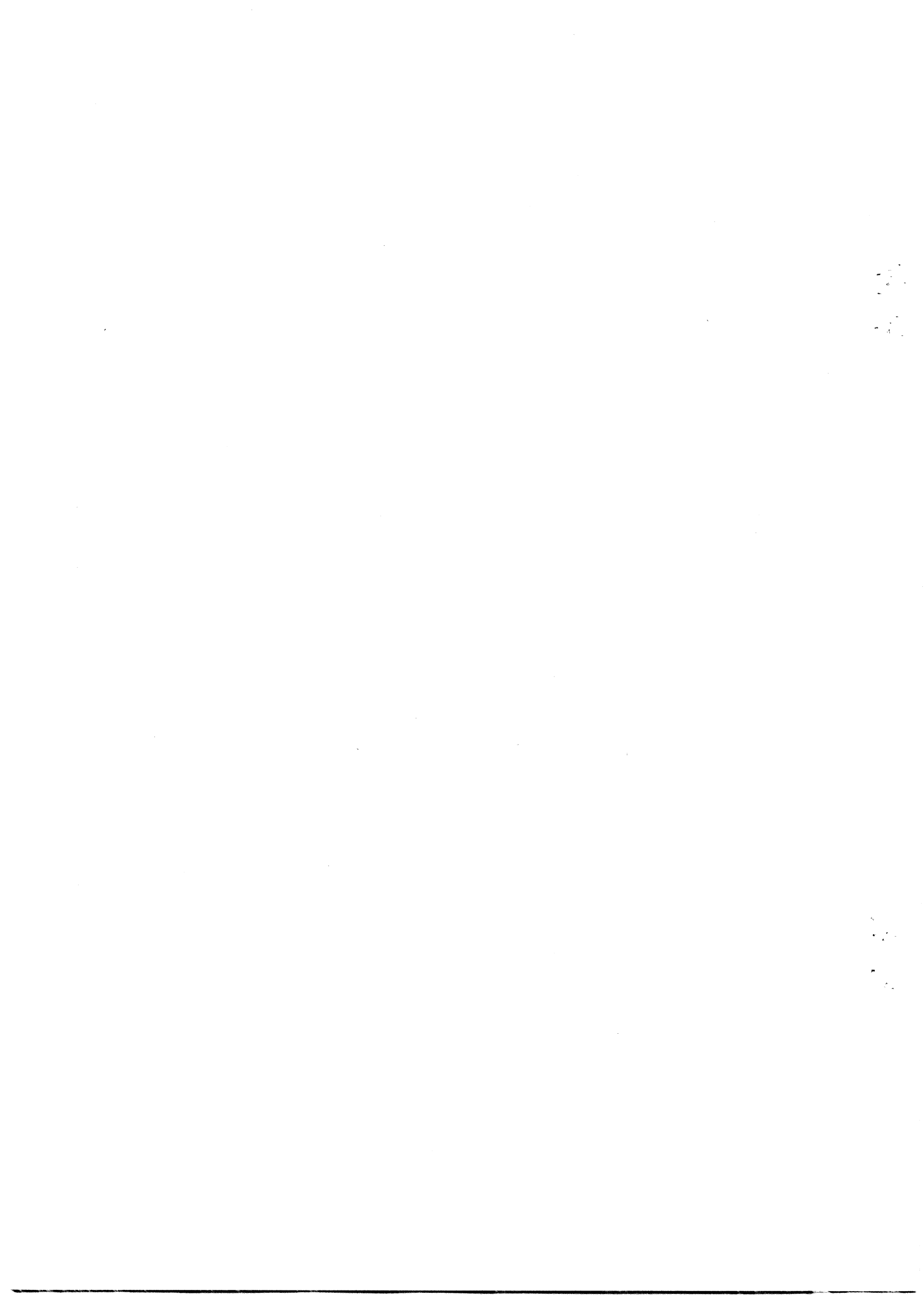
Your Excellencies, heads and members of delegations,

On behalf of the Kingdom of Saudi Arabia, its King, Government and people, I am pleased to welcome you to the Kingdom which is always honoured to host and sponsor gatherings such as this, which promise to promote prosperity and well-being among our sister countries; this Kingdom that is ever anxious to provide these gatherings with all the facilities needed for their success and for the accomplishment of positive and practical results. I am also pleased to welcome the esteemed participants who were kind enough to join us at the opening session of this Meeting, thanking them for their gracious interest.

Distinguished brothers,

We are all conscious of the vital role which is played by water in the life of the world - its peoples, its bounty and all its living things. In addition to being one of the essential elements of the life and survival of all living persons and things on this planet, water is also the general support of development and the common denominator of its diverse sectors.

Accordingly, I feel certain that you share my opinion of the primordial significance and the great sensitivity that characterize the present Meeting and that nourish our ambitions and expectations that it will play a truly positive, effective, scientific and modernizing role, clear in its objectives, specific in its impact and limited in its targets, far removed from the monotonous and repetitions gatherings that never produce definite results.





Accordingly, I urge you to put the emphasis on the scientific quality of your deliberations, even if this means that you will emerge with a limited number of recommendations or but a single recommendation that will be worthy, however, of serving as the starting point of an uninterrupted common scientific journey and the beginning of a joint fraternal effort with fruitful prospects, instead of working towards a wide array of recommendations whose force will be dissipated in their multiplicity and dispersion. Quality and method, not quantity and magnitude are the guidelines we seek to follow.

The Kingdom of Saudi Arabia, under the leadership of His Majesty King Khalid Ibn Abdelaziz and with the indefatigable efforts of His Royal Highness, Crown Prince Fahed Ibn Abdelaziz, is progressing along well-studied and purposeful steps in every sector of development. One of the most prominent of these sectors is the development of the Kingdom's water resources and the optimalization of their use for drinking, agriculture, industry and the other areas where the nature of development requires their utilization.

These efforts are aimed at the development of our groundwater resources and the conversion of fresh water from the saline waters of the Red Sea and the Arabian Gulf. Intensive studies are being conducted uninterruptedly in the search for new sources of water, followed by extensive engineering works operating according to established time-tables that keep pace with the expansion of our cities and towns, our agriculture, industry and other needs.

On the regional, the Arab and the international levels and through the variety of organizations, funds and consulting firms, the Kingdom has been participating effectively and has been expending time and effort and extending its support to assure the success of efforts taken in the different sectors of development in general and the agricultural and water fields in particular, whose importance to world food security is intimate.

In this regard, I would like to assert and insist upon the positive desire and readiness of the Kingdom of Saudi Arabia to support the different facets of co-operation extant among the Arab countries in the field of water and agricultural policy, whether in terms of regional conferences, Arab activities or common organizations. The support the Kingdom wishes to extend is vertical: It wishes to strengthen existing efforts and place at their disposal all that will assure their success. It wishes to avoid the temptation of horizontal expansion which often distracts us from our main goals, scatters our efforts and deprives us of the fruits of our labour.

Distinguished brothers,

I welcome you all once again and I wish for your Meeting every success and accomplishment.

God be with you.

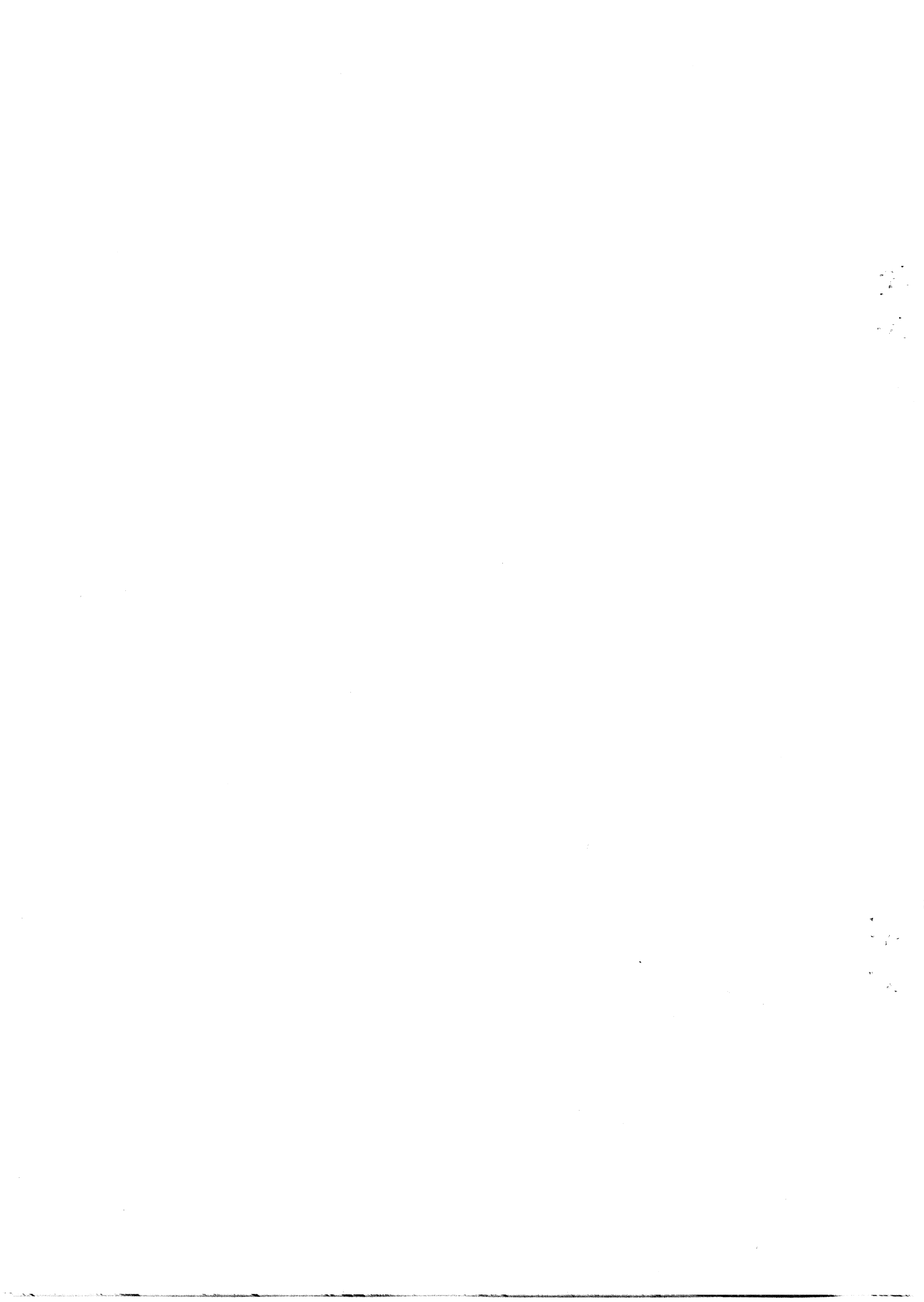
Statement

by

Mr. Abdallah Mohammad Al Ghulaika  
Deputy Minister for Water Affairs  
Ministry of Agriculture and Water

-

ECWA Second Regional Water Meeting



In the Name of God the Compassionate, the Merciful

Distinguished brothers and colleagues, heads and members of delegations,  
Esteemed participants,

It is a most gratifying and fortunate occasion on which we celebrate today the opening in Riyadh, the capital of the Kingdom of Saudi Arabia, of ECWA's Second Regional Water Meeting under the auspices of H.E. Dr. Abdel-Rahman Abdel-Aziz Al Asheikh, Minister of Agriculture and Water. Permit me to endorse His Excellency's warm welcome to you all to your second country, the Kingdom of Saudi Arabia. Our hope and expectation is high that God will guide you through this fraternal meeting to fruitful results whose tangible consequences and perceptible yields will deepen the various facets of co-operation among our countries and organizations as they engage in the development of water resources and the improvement and development of the methods of water exploration, conservation and exploitation.

Allow me to cast a cursory glance at the interest which the Kingdom of Saudi Arabia has shown in the water sector and at the plans which it has formulated for its development and growth.

It is a well-known fact that the consumption of water in a variety of uses is increasing continuously the world over in direct proportion to the increase in personal demand and the requirements of economic and industrial development.

As our countries experienced greater social, economic, agricultural and industrial development and construction activity, their rates of water consumption grew considerably. In order to secure the provision of its future needs the Ministry of Agriculture and Water has put the emphasis on raising the standards of water management, on the development and improvement of water resources, on the conservation of groundwater reservoirs and on the efficiency of water utilization.

As the water resources of our country are limited in comparison with other regions of the globe, seven years ago the Ministry undertook a number of general studies which comprised most of the inhabited regions, covering an area of about 1,300,000 km<sup>2</sup>. These preliminary studies uncovered a number of major water

sources which could be used for drinking water and for agricultural development in the sedimentary strata of the Kingdom. On the basis of the findings of these general studies the Ministry adopted a well-defined programme for the conduct of detailed studies of the principal water sources that had been discovered. These studies were begun in 1393 A.H. with the aim of obtaining the basic information needed for developing these sources. Some of these studies have already been completed while the rest are still in progress in accordance with the established time-table.

In view of the importance of hydrometeorological data for the development of water resources the Ministry has drawn up a programme for covering the Kingdom with a concentrated network of hydrometeorological stations. Fifty meteorological stations, 500 rainfall gauging stations and 50 streamflow gauging stations have been completed. The Ministry has a plan for introducing advanced instrumentation in the work of these stations.

The Ministry is likewise monitoring the water resources of the Kingdom in order to determine the extent of the impact of development and consumption on these resources. For this purpose it has at its disposal 530 monitoring wells of which 300 are hand-dug wells and 230 are tube wells distributed throughout the different regions of the Kingdom.

Dams also bear a major significance in the development of agricultural and water resources; for they permit the exploitation of the rain water that falls over the regions of the Kingdom. Accordingly, the Ministry of Agriculture and Water has constructed 50 dams of varying sizes. The storage capacity of some of these dams is as much as 70 million cubic meters. The Ministry is continuing the construction of more dams at the rate of ten per year.

Then again, the water sector of the Ministry is undertaking the necessary studies and activities for supplying all the cities and villages of the Kingdom with drinking water. To this end it is drilling hand-dug wells and tube wells, constructing reservoirs over them and laying out the necessary networks for distributing the water to the different domestic users. About 100 such wells are being drilled annually in different regions of the country, in addition to the implementation of 40 integrated water projects, including pipe networks, reservoirs and pumping stations.

Distinguished brothers,

In addition to the efforts of the Ministry of Agriculture and Water in the development of agricultural and water resources and in the provision of

drinking water to the population, there are a number of other governmental organizations and institutions that share these concerns and responsibilities with it. Among these is the Saline Water Conversion Corporation. This institution has already constructed and is in the process of constructing giant desalination and hydroelectric stations on the western and the eastern shores of the Kingdom. On the Red Sea it has constructed and is presently constructing giant desalination plants at Jeddah, and at Duba, Al-Wajh, Yanbu', Al-Lith and Rabigh and on Farasan Island. On the Arabian Gulf, it has constructed and is constructing other plants at Al-Khobar, Al-Jubail and Al-Khafji. Work is in progress to supply the capital city of Riyadh with desalinated Gulf water from the Al-Jubail plant. This Corporation has an ambitious and well-studied plan for vertical and horizontal expansion in the construction of desalination and hydroelectric stations at other points in the Kingdom.

The water supply and sewerage departments of the principal cities of the Kingdom and the Public Utilities Department of the Ministry of Municipal and Rural Affairs also share the responsibilities of the Ministry of Agriculture and Water in that they supervise the operations of certain water projects in a number of regions of the Kingdom.

My intention in these brief comments was to place before you a clear picture of the efforts being made by the Kingdom of Saudi Arabia in the development of its own agricultural and water resources as well in co-operative ventures with neighbouring countries with whom it shares common geological formations. I have truly high hopes that your present Meeting will take us a giant step forward towards the co-ordination of the efforts of our sister countries in the field of water studies, in the exchange of relevant information and in mutual co-operation in each and every activity that serves to promote this most vital sector of development. I wish you and your Meeting every success.

God be with you.





Address by Dr. M.S. Al-Attar, Executive Secretary of the United Nations Economic Commission for Western Asia, at the opening of the Second Regional Water Meeting. Riyadh, 1 Safar 1399 (30 December 1978).

Your Excellency, the Minister of Agriculture and Water,

Distinguished Delegates and Observers,

I have the honour of commencing my address by expressing my deep gratitude and sincere appreciation to the Government of the Kingdom of Saudi Arabia for its gracious hosting of the Second Regional Water Meeting and the valuable endeavours which it has made to ensure the success of this Meeting.

I have great pleasure in welcoming and thanking H.E. Dr. Abdul-Rahman Abdul Aziz Al Asheikh, the Minister of Agriculture and Water, who kindly agreed to open this Meeting, thereby confirming his concern and support for the activities of the Economic Commission for Western Asia.

It is also a pleasure for me to welcome the distinguished delegates and observers who, believing in its objectives and wishing to contribute to its success, have kindly attended this Meeting.

The eighth resolution adopted by the United Nations Water Conference held at Mar Del Plata in Argentina from 14-25 March 1977 called upon the economic commissions within their respective regions to play a central role in the promotion of intergovernmental co-operation as a follow-up to the so-called "Mar Del Plata Action Plan" for the management and development of water resources. The above Conference also took note of the various recommendations and resolutions adopted by the economic commissions at their regional preparatory meetings while leaving the implementation of these recommendations and resolutions to be undertaken by the commissions in the manner which they might deem appropriate in the light of the recommendations adopted by the Conference.

In May 1977, the United Nations Committee on Natural Resources adopted at its fifth session in Geneva a resolution calling upon the economic commissions to hold regional meetings in order to ascertain the views of member States concerning follow-up action on the resolutions and recommendations of the United Nations Water Conference and in order to look into the opportunities, needs and problems involved in their implementation at the regional level.

In August 1977, the Economic and Social Council adopted at its sixty-third session resolutions 2121 and 2115 which stressed the need for strengthening and enhancing the responsibilities of the economic commissions in the water field at the regional and the subregional levels. The Council also called upon the economic commissions to hold regional meetings to review the questions indicated above.

Accordingly, ECWA made the necessary contacts for holding this Second Regional Water Meeting as a follow-up to the resolutions and recommendations of the United Nations Water Conference and the first regional water meeting which was held in Baghdad from 11-16 December 1976.

Ladies and Gentlemen,

We are all aware that most of our region falls within arid and semi-arid zones which are characterized by limited water resources. This means that the region in general or in some of its parts is experiencing now or will experience soon a shortage of water resources with undesirable effects on the progress of social and economic development. This shortage is likely to grow ever worse for the following reasons:

1. The rapid agricultural and industrial expansion, the rapid population increase and the growing urbanization in the region.
2. The general absence of national planning and well-designed policies that would bring the use of available water resources into line with economic, agricultural and social development.

3. The lack of awareness in the private sector, and in some instances the public sector, of the need of the rational management, conservation and development of water resources at the national level. This is likely to lead to the exhaustion of ground reserves and to shortages in surface water resources; or else these resources may be rendered useless due to depletion and, in certain instances, pollution.

4. The general poverty of quantitative and qualitative knowledge of national surface and ground water resources.

5. The general absence of national bodies or agencies responsible for the co-ordination of activities related to the development, conservation and management of water resources at the national level.

6. The absence of technical co-operation among the different countries at the regional level in the study and assessment of water resources, especially in shared water basins, for the purpose of developing available and prospective resources.

I would like to indicate here that the optimum utilization of the water resources of the region, based on scientific and practical foundations and on well-designed governmental planning, is bound to have a central effect on the outcome of immediate and long-term socio-economic development. Moreover, confiding the effective handling of the water sector to specialized legislative and administrative institutions at the centralized level is bound to have a positive impact on the development, conservation and management of vital water resources and to attenuate the hardships involved in dealing with possible water shortages at the national level.

Among the primordial factors involved in the planning for optimum utilization of water resources is a sound qualitative and quantitative knowledge of and familiarity with the facts of available and prospective water resources. It is not surprising, then, that the first resolution adopted by the United Nations Water Conference should stress the need for the assessment of water resources at the national level and should call upon member States to give high priority to the collection of hydrological and hydrogeological data and information and

to the formulation of long-term programmes for monitoring, following up and analyzing this information so as to arrive at sound and realistic assessments of available water resources and the means for developing them.

Ladies and Gentlemen,

The topics that we shall be discussing together at the present meeting are, as I have already indicated, intrinsic to the resolutions of the United Nations Water Conference and the Baghdad water meeting, whose importance to the development and management of our regions's water resources is immediate. In addition to the presentation and deliberation of the measures taken in the assessment of our water resources in general and the measures recommended for adoption on the country and the regional level in compliance with the first resolution of the United Nations Water Conference, the Meeting, as evident from the proposed agenda in your hands, will also discuss the preparatory activities for the International Community Water Supply and Sanitation Decade in compliance with United Nations Water Conference resolution 2, on which subject WHO has graciously prepared a paper.

Our Meeting will also be discussing the present status of the use of water in agriculture and the means of determining the irrigation methods that will increase the efficiency of water use in agriculture so that we shall have better knowledge of the optimum ways of maximizing returns.

The measures for assessing water resources, the preparations for the International Community Water Supply and Sanitation Decade and the increased efficiency in agricultural water use cannot take place outside the context of the development of human resources and trained manpower in the water sector and the establishment of specialized institutes for training the manpower which is to be responsible for the sound management, exploitation and conservation of water resources.

The Meeting will also discuss the status of technical co-operation among the developing countries in the development of water resources at the subregional, regional and international levels and the impact of such co-operation on the region.

Distinguished Delegates and Observers,

One of the most important topics that will be taken up by our Meeting is a topic that has long been awaiting attention: the establishment of the Regional Council for the Development of Water Resources.

The establishment of this Council was proposed at the first ECWA water meeting which was held in Baghdad and the United Nations Water Conference adopted the ECWA proposal. The decision to establish the Council was taken at ECWA's fourth session which was held in Amman in April 1977, and was embodied in resolution 39. This resolution requested the Executive Secretary of the Commission "to take the initiative in contacting all member States in order to ascertain which of them may wish to establish a water resources council, and to convene its first meeting as soon as possible". In fact all the member States were contacted and the majority responded favourably.

One of the main aims in setting up this Council is to establish a sound nucleus to co-ordinate and promote technical co-operation at the regional level, especially among countries sharing surface and ground water basins, with a view to the development, conservation and management of these resources in a rational and efficient manner. I call upon the Meeting to support the establishment of this Council which will, beyond a shadow of doubt, constitute a sound and appropriate nucleus for documentation, the exchange of information and co-ordination of research in regard to water, and for the formulation of well-conceived, long-term water plans aimed at the optimum utilization of water resources, particularly at the regional level.

I am confident, gentlemen, that you will accord this matter the attention which it deserves.

Mr. Minister,

Delegates and Observers,

The Economic Commission for Western Asia is continuing to face difficult and distressing circumstances as a result of the grievous events besetting Lebanon which have led us to postpone the holding of this Meeting several times until the Government of the Kingdom of Saudi Arabia kindly offered to host it.

These conditions of force majeure under which the Commission has been, and still is, operating may have had an effect on the quality of the documents prepared for this Meeting. We therefore beg your indulgence for any inadvertent errors which may come to your notice.

In conclusion, please allow me, Your Excellency, to reiterate my profound gratitude and sincere appreciation to the Government and people of the Kingdom of Saudi Arabia for generously hosting this meeting attended by so many distinguished delegates and observers who have come from Arab and international countries and organizations with the aim of helping us to develop water resources in the ECWA region and attempting to resolve the problems that might impede our achievement of this objective.

I wish you a highly successful and fruitful Meeting.

God be with you.

LIST OF DOCUMENTS

<u>Symbol</u>	<u>Title</u>	<u>Language</u>
E/ECWA/NR/CONF.3/1	Provisional Agenda	E & A
E/ECWA/NR/CONF.3/Add.1	Annotated Provisional Agenda	E & A
E/ECWA/NR/CONF.3/2	Report of the ECWA Regional Preparatory Meeting for the United Nations Water Conference, Baghdad-Iraq 11-16 Dec. 1976	E & A
E/ECWA/NR/CONF.3/3	Technical Co-operation Among Developing Countries with regard to Water Resources Development	E
E/ECWA/NR/CONF.3/4	Report on Community Water Supply and Sanitation	E
E/ECWA/NR/CONF.3/5	Water for Agriculture	E
E/ECWA/NR/CONF.3/6	Agricultural Water Use Prepared by Richard Palmer Jones, and Ian Carruttiens Wye College, University of London, U.K.	E
E/ECWA/NR/CONF.3/7	Desalination Application in Western Asia	E
E/ECWA/NR/CONF.3/8	The Projections of Water Demands for ECWA Countries by the year 2000	E & A
E/ECWA/NR/CONF.3/9	Study on Manpower Training Needs and Problems in the Field of the Water Resources Development in the ECWA Region	E & A
E/ECWA/NR/CONF.3/10	Assessment of Water Resources	E & A
E/ECWA/NR/CONF.3/11	Preparatory Activities of WHO Eastern Mediterranean Region for the International Drinking Water Supply and Sanitation Decade	E & A

Symbol	Title	Language
	<u>Working Papers</u>	
E/ECWA/NR/CONF.3/WP.1	Action Taken by Member Countries in the light of Recommendations of UN Water Conference and First Regional Water Meeting	E & A
E/ECWA/NR/CONF.3/WP.2	Establishment of a Regional Water Resources Council	E & A
E/ECWA/NR/CONF.3/WP.3	Manpower Situation and Requirements in the Water Sector	E & A
E/ECWA/NR/CONF.3/WP.4	Community Water Supply and Sanitation Situation	E & A
E/ECWA/NR/CONF.3/WP.5	Agricultural Water Use Situation	E & A
E/ECWA/NR/CONF.3/WP.6	Strengthening Technical Co-operation among Developing Countries in the Water Field at Subregional, Regional and Interregional levels.	E & A
E/ECWA/NR/CONF.3/INF.1	Notes to Participants	E & A
E/ECWA/NR/CONF.3/INF.2	List of Documents	E & A
E/ECWA/NR/CONF.3/INF.3	Provisional List of Participants	E & A
E/ECWA/NR/CONF.3/INF.3/Rev.1	List of Participants	E & A

