

# JOURNAL OF HYDROLOGY

NEW ZEALAND

Published twice annually by the New Zealand Hydrological Society

---

Volume 8

1969

Number 1

---

## EDITORIAL

---

### Hydrology and UNESCO

The concern of member states of UNESCO with water problems—with the fact that there is continued increase in water requirements and that the investigation of water resources in many parts of the world is inadequate—was expressed in a resolution passed by the General Conference at its 12th session held in Paris in 1962. The General Conference authorized the Director-General, in co-operation with member states of UNESCO, with the competent organizations of the United Nations system and with the interested international, regional and national scientific organizations, to prepare a long-term programme of international co-operation in scientific hydrology. This led to the inauguration, in January 1965, of the International Hydrological Decade—man's first concerted attempt to take stock of his diminishing available resources of fresh water, and to co-ordinate world-wide research on methods of making better use of them.

The Decade opened in the context of a growing world shortage of water, affecting both developed and developing countries. Of the world's total water supply, 97 percent is in the oceans where it is largely unusable, and three-quarters of the remainder is locked up in ice-caps and glaciers. The Decade was conceived as a way of gathering the scientific information required for better water management and of training the technical staff needed to collect this information.

The General Conference of UNESCO, at its 13th session in 1964, recognized that for the successful launching of the Decade it was necessary to establish appropriate machinery to ensure the participation of member states and the co-ordination of their activities with those of international governmental and non-governmental organizations. On the national level, member states were encouraged to set up national committees for the IHD as co-ordinating, advisory and liaison bodies; and on the international level, UNESCO set up a co-ordinating council, representative of the various continents and regions to supervise from the organizational and scientific points of view the implementation of the whole Decade programme.

From the beginning of the Decade programme UNESCO has been engaged in collecting, exchanging and disseminating informa-

tion concerning research on scientific hydrology; it has paid particular attention to the training of hydrologists; it has been engaged on the preparation of publications dealing with various aspects of hydrology; and it has assisted member states in determining and attempting to solve their problems in this field.

The General Conference, at its 15th session held in Paris at the end of 1968, voted in favour of an increase in the budget and an expansion of the programme in the field of hydrology; it authorized the convening in 1969 of an international conference on the practical and scientific results of the IHD and on international co-operation in hydrology. The aim of the conference will be to stimulate further participation by all member countries of UNESCO in the activities of the Decade, to assess progress achieved, and to consider the needs and possibilities for a long-term programme. During 1969 and 1970 special attention will continue to be paid to the establishment of water balances for national territories, and to the comparison of results on a regional scale with a view to obtaining the synthesis of water balances for continents, oceans and the whole globe. Special emphasis will also be placed on projects such as design of water resource projects with inadequate data; hydrological cycle and water balance; principles controlling regimes of surface and ground waters; stream channel morphology and evolution, erosion and sediment transport; the influence of human activities on hydrological regime; problems of floods and their computation; hydrological forecasting; systems for acquisition, transmission and processing of hydrological data; and hydrological problems related to pollution and desalination. All these projects are within the scope of the priority areas designated by the Co-ordinating Council for the IHD.

The continued success of the IHD depends to a large extent on co-operative action, whether this be at the international or the regional level. Successive General Conferences have appealed to member states of UNESCO sharing common basins or situated in regions with similar hydrological conditions, to establish or develop regional co-operation for the scientific study of these areas. This regional co-operation is encouraged and assisted by UNESCO which has provided experts, helped with publications and convened meetings, and more recently, has supplied regional experts in hydrology for Latin America and South and South-east Asia.

Although New Zealand shares no boundaries with other countries and depends on no other countries for its water supply, it cannot ignore UNESCO's appeal for co-operation; it stands to gain from the experience of others, and because of the complexity of its own problems and the methods that it has evolved for dealing with them it is in a position to share its experience with others.

KRYSTYNA D. DOWNEY,  
Secretary,  
N.Z. National Commission for UNESCO.