

October 1999

GENERAL Distr. Original: ENGLISH

International Atomic Energy Agency GENERAL CONFERENCE

Forty-third regular session Agenda item 18 (GC(43)/27)

## EXTENSIVE USE OF ISOTOPE HYDROLOGY FOR WATER RESOURCES MANAGEMENT

Resolution adopted on 1 October 1999 during the ninth plenary meeting

The General Conference,

(a) <u>Appreciating</u> the work done by the Agency in the area of isotope hydrology in response to resolution GC(41)/RES/15,

(b) <u>Recognizing</u> that the Agency has well demonstrated the importance of isotope techniques for water resources development and management, particularly in arid and semi-arid areas, and also for the evaluation of pollutant transport in groundwater and surface water systems,

(c) <u>Conscious of</u> the proven techno-economic benefits of isotope hydrology in water resources management when used in conjunction with well-established conventional hydrological investigations and modern methods like remote sensing,

(d) <u>Noting</u> that the initiatives taken by the Agency, as mentioned in document GC(43)/21, go in the right direction as regards strengthening the end-user benefits and socio-economic impact of the utilization of isotope techniques in water resources management in Member States,

(e) <u>Aware</u> that, owing to a variety of constraints, isotope techniques are still not fully integrated with field hydrology in many developing countries,

(f) <u>Appreciating</u> the initiatives taken by the Agency in co-operating with other relevant international organizations active in water resources development and management, and

(g) <u>Also appreciating</u> the work of the Agency on dam leakage detection, safety and sustainability,

1. <u>Requests</u> the Director General:

(a) to continue to make efforts directed towards fuller utilization of isotope techniques for water resources development and management in developing countries, including measures to control groundwater and surface water pollution,

(b) to continue to facilitate, through appropriate programmes, the integration of isotope techniques in water resources management by increased collaboration with other national and international organizations dealing directly with water resources management, and

(c) to continue to help Member States to obtain easy access to isotope analysis facilities by upgrading selected isotope hydrology laboratories to the level of regional resource centres;

2. <u>Requests</u> the Agency:

(a) to continue, along with other relevant United Nations agencies, to develop human resources in isotope hydrology through appropriate courses, at universities in Member States, through the use of advanced communications techniques and at regional training centres, designed to provide practising hydrologists with the ability to use isotope techniques, and

(b) to continue its work on dam leakage detection, safety and sustainability; and

3. <u>Further requests</u> the Director General to report on achievements in implementing this resolution to the Board of Governors and to the General Conference at its forty-fifth session under an appropriate agenda item.