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COMMITTEE OF THE WHOLE

Strengthening the Agency's activities related to nuclear science, technology and applications

Use of isotope hydrology for water resources management

Draft resolution recommended by the Committee of the Whole*

The General Conference,

- (a) Appreciating the work of the Agency in the area of isotope hydrology in response to resolution GC(49)/RES/12.B,
- (b) Noting that the United Nations have proclaimed the period 2005-2015 as an International Decade for Action, "Water for Life", to bring about a greater focus on the critical linkage between water and human development at all levels and to improve the sustainable management of freshwater resources,
- (c) Conscious of the recent human suffering caused by water-related disasters, including tsunamis and floods,
- (d) Recognizing that the Agency has continuously demonstrated the importance of isotope techniques for water resources development and management, particularly for groundwater management in arid and semi-arid regions and for improved understanding of the water cycle,
- (e) Noting that the initiatives of the Agency, as mentioned in document GC(49)/12, Annex 1, are addressing national priorities and have resulted in a wider use of isotope techniques for water resources and environmental management,
- (f) Appreciating the fact that the initiatives taken by the Agency have increased co-operation with other relevant international organizations active in water resources management and

* Possibly to be clustered with other draft resolutions recommended by the Committee.

development and have led to joint projects with UNESCO and the Global Environmental Facility (GEF) of UNDP for increased capacity-building and the management of transboundary aquifers,

(g) Recognizing the work done by the Agency in improving the management of fossil groundwater systems, in developing human resources and in improving the global use of isotope data by their rapid and efficient dissemination through the internet,

(h) Commending the organization of the International Symposium on Advances in Isotope Hydrology and its Role in Sustainable Water Resources Management, held in May 2007, and the Agency's participation in the fourth World Water Forum, in March 2007,

(i) Noting the harmonization of procedures for data handling and the development of protocols for quality assurance and quality control aimed at improving the quality of data, and

(j) Appreciating the development of new helium-3 isotope detection techniques for more accurate dating, the world-wide implementation of 70 projects on water resources development and management through the technical cooperation programme, and the production of an audio-visual package on the collection of water samples aimed at improving the quality of data collection,

1. Requests the Director General, subject to the availability of resources:

(a) to continue to further strengthen the efforts directed towards the fuller utilization of isotope and nuclear techniques for water resources development and management in the interested countries through appropriate programmes, by increased collaboration with national and other international organizations dealing directly with water resources management,

(b) to continue to help Member States to obtain easy access to isotopic analysis by upgrading selected laboratories and by assisting Member States in adapting new and less expensive analytical techniques based on recent advances in relevant technologies, including laser-based ones,

(c) to continue its work on groundwater management, particularly the assessment and management of fossil groundwater resources, including in arid and semi-arid areas, and on dam leakage detection, safety and sustainability, in collaboration with other international organizations and with regional organizations, and

(d) to strengthen activities which contribute to the understanding of the climate and its impact on the water cycle and which are aimed at the better prediction and the mitigation of water-related natural calamities, and to contribute to the success of the International Decade on Freshwater,

2. Requests the Agency to continue, along with other relevant United Nations agencies and with relevant regional agencies, to develop human resources in isotope hydrology through appropriate courses, at universities and institutes in Member States, through the use of advanced communication techniques and educational tools and at regional training centres, designed to provide practicing hydrologists with the ability to use isotope techniques; and

3. Further requests the Director General to report on achievements in implementing this resolution to the Board of Governors and to the General Conference at its fifty-third (2009) session under an appropriate agenda item.