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COMMITTEE OF THE WHOLE

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

Non-power nuclear applications

Draft resolution recommended by the Committee of the Whole*

The General Conference,

- (a) Noting that the Agency's objectives as outlined in Article II of the Statute include "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world",
- (b) Noting also that the statutory functions of the Agency as outlined in Article III of the Statute, paragraphs A.1 to A.4, include encouraging research and development and fostering the exchange of scientific and technical information and the training of scientists and experts in the field of peaceful uses of atomic energy, with due consideration for the needs of developing countries,
- (c) Noting the Medium Term Strategy as guidance and input in this respect,
- (d) Stressing that nuclear science, technology and applications address and contribute to a wide variety of basic socio-economic human development needs of Member States, in such areas as energy, materials, industry, food, nutrition and agriculture, human health and water resources, and noting that many Member States are obtaining benefits from the application of nuclear techniques in food and agriculture through the Joint FAO/IAEA Programme,
- (e) Recognizing the success of the sterile insect technique (SIT) in the suppression or eradication of the screw-worm, the tsetse fly, and various fruit flies and moths that can cause large economic impacts,

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

- (f) Noting the perpetual serious problem of locusts in Africa, especially in areas highly prone to environmental degradation and desertification, and that it has been responsible for severe famine in certain countries,
- (g) Confirming the important role of science, technology and engineering in enhancing nuclear safety and security,
- (h) Acknowledging the need to resolve the issues of managing radioactive waste in a sustainable manner,
- (i) Acknowledging that the peaceful use of fusion energy can be advanced through increased international efforts and with the active collaboration of interested Member States and organizations in fusion-related projects,
- (j) Noting that the 21st IAEA Fusion Energy Conference was held in Chengdu, People's Republic of China, from 16 to 21 October 2006 and looking forward to the 22nd IAEA Fusion Energy Conference "Fifty Years of Fusion", to be held in October 2008 in Geneva, Switzerland, and encouraging Member States to participate in this significant event,
- (k) Taking note of the " Nuclear Technology Review 2007 " (GC(51) /INF/3) prepared by the Secretariat,
- (l) Aware of the problems of pollutants arising from urban and industrial activities and the potential of radiation treatment to address some of them,
- (m) Recognizing the increasing use of radioisotopes and radiation techniques in healthcare practices, crop improvement, food preservation, industrial process management, new materials development and analytical sciences, and in measuring the effects of climate change on the environment,
- (n) Aware that strengthening support to capacity-building in developing Member States in emerging areas of nuclear techniques is important for accrual of benefits from nuclear applications,
- (o) Noting the expanding use of positron emission tomography (PET) and hospital-prepared radiopharmaceuticals, and noting with appreciation the convening of an international conference on Quality Assurance and New Techniques in Radiation Medicine in November 2006 in Vienna, which marked the first time that quality assurance (QA) has been discussed in relation to all aspects of radiation medicine,
- (p) Acknowledging the increased capacity of Member States in using nuclear techniques in disease management and aware of the need for developing performance indicators for measuring such capacity,
- (q) Noting the completion of several CRPs on radiation processing technology and radiopharmaceutical development and welcoming the initiation of a new CRP relating to PET radioisotope production in 2006,
- (r) Noting with concern that, due to high costs related to nuclear medicine, the full deployment of up-to-date techniques has been hampered,
- (s) Noting, that the Agency has embarked on an effort to compile and disseminate isotope data from aquifers and rivers worldwide aimed at assisting decision-makers in adopting better practices for groundwater management, and
- (t) Welcoming the creation of the IAEA Nobel Peace Prize Cancer and Nutrition Fund in response to the Board of Governors decision that the Agency's share of the 2005 Nobel Peace Prize should be used to fund fellowships and training to improve cancer control and child nutrition in the developing world,

1. Stresses the need, in conformity with the Statute, to continue to pursue activities of the Agency in the areas of nuclear science, technology and applications for meeting basic sustainable development needs of Member States;
2. Underlines the importance of facilitating effective programmes in the areas of nuclear science, technology and applications aimed at pooling and further improving the scientific and technological capabilities of Member States through coordinated research and development within the Agency and between the Agency and Member States and through direct assistance;
3. Recognizes the importance of and endorses Agency activities that meet the objective of fostering sustainable development and protecting the environment;
4. Urges the Secretariat to continue implementing efforts that contribute to greater understanding and a well-balanced perspective of the role of nuclear science and technology in sustainable global development, including the Kyoto commitments;
5. Requests the Director General to continue to pursue, in consultation with Member States, the Agency's activities in the areas of nuclear science, technology and applications, with special emphasis on supporting the development of nuclear applications in Member States with a view to strengthening infrastructures and fostering science, technology and engineering with due regard to nuclear safety and nuclear security;
6. Calls upon the Secretariat to address specific needs and requirements of Member States, including those which do not have nuclear power facilities, in the areas of nuclear science, technology and applications, including the use of the SIT to establish tsetse-free zones and for combating malaria-transmitting mosquitoes and the Mediterranean fruit fly, the unique applications of isotopes to track the global uptake by the oceans of carbon dioxide and the resulting acidification effects on marine ecosystems, the use of isotopes and radiation in groundwater management and applications relating to agriculture such as crop improvement, human health, including additional concrete efforts through PACT and in the use of cyclotrons for the production and quality control of PET radiopharmaceuticals, the development of novel materials, including value-added products from natural polymers, industry and the protection of the environment, including the treatment of greenhouse gases (GHGs) and flue gases resulting from fossil fuel burning;
7. Calls for the support of the Agency in setting guidelines for the adoption of advanced techniques and equipment in radiation medicine in developing Member States;
8. Requests the Secretariat to continue providing assistance with capacity-building for quality assurance in radiopharmaceutical development and disseminating radiation technology guidelines based on international quality assurance standards;
9. Urges the strengthening of the Joint FAO/IAEA Agriculture Programme to enhance its continuing efforts in supporting Member States, particularly in the areas of inter-regional and national capacity building, policy advice, establishment of standards and guidelines, and need-driven research and methods development;
10. Requests the Secretariat to initiate, in collaboration with FAO and Member States, R&D on the possible use of nuclear techniques as a component of an integrated approach for combating locusts and to provide appropriate assistance to this end;
11. Requests also that the actions of the Secretariat called for in this resolution be undertaken subject to the availability of resources; and

12. Recommends that the Secretariat report to the Board of Governors and to the General Conference at its fifty-second (2008) regular session on the progress made in the areas of nuclear science, technology and applications.