

INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA)

Support to NEPAD

Period of Report: July 2007 to June 2008

Support to specific areas relevant to the implementation of NEPAD

The IAEA assistance continued to focus on supporting Member States under national and regional technical cooperation programmes in developing technical, managerial and institutional capacities in various areas of nuclear science and technology and applications.

Over \$44 million was allocated under the Technical Cooperation Fund (TCF) to Africa for the 2007–2008 TC programme cycle representing 28% of the total TCF budget of the IAEA. Besides their bilateral cooperation with IAEA under the TC programme, the majority of African Member States actively participate in the intergovernmental African Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA). During the period under review, AFRA activities continued to cover a wide spectrum of nuclear applications, including cancer treatment and clinical medical diagnostics, livestock production, crop improvement, industrial quality control (non-destructive testing), quality management and control, management of coastal zones, information and communication technology (ICT) and nuclear security.

In addition to supporting the AFRA cooperative programme, the Agency implemented various TC regional activities, including projects on the control of human communicable diseases, assessment of nutrition intervention programmes, combating tsetse fly infestation and trypanosomosis, management of transboundary groundwater resources, control of major epizootics and support to Member States in establishing robust and sustainable national radiation safety infrastructures and capabilities in nuclear security.

Human and Institutional Capacity Building

The Agency continued in 2007 its support to institutions of higher education and training in Africa to sustain the development of the human resource base which is needed to promote wider utilization of potential nuclear techniques for socio-economic development. Furthermore, about 800 African scientists and technicians were trained through regional training courses and technical workshops. For the period July 2007 – February 2008, over 460 fellowships and scientific visits in various fields of nuclear science and technology were implemented.

Under an AFRA project, ICT tele-centres were established in Botswana, Nigeria and Senegal. Furthermore, IAEA took an active part in the organisation of the first Conference on ICTs in training and learning in nuclear science and technology in Africa,

which was held in Niamey, Niger, November 2007 and attracted a large audience of African ICT experts, key speakers from Asia, Canada and the USA, as well as African decision-makers.

Improving Health Services

The IAEA TC programme in the region concentrates on the development of capabilities for the management of cancer, medical diagnostics, evaluating the effectiveness of nutrition intervention strategies, and monitoring the emergence of drug resistance in malaria and tuberculosis (TB).

The IAEA also continued its support in the global effort to tackle the HIV/AIDS pandemic. Under a regional project, assistance was provided to five countries (Cameroon, Ethiopia, Kenya, South Africa and Uganda).

Member States also continue to receive substantial assistance from the IAEA in the field of cancer management. Special attention continued to be attached to the provision of dedicated training of key personnel involved in cancer management, including radiation oncologists and medical physicists.

Several Member States, including Botswana, Eritrea, Kenya, Mali, and Niger received IAEA support to carry out a feasibility study for establishing a national radiotherapy centre. Further, assistance was provided to other countries (Algeria, Madagascar, Tunisia, the United Republic of Tanzania and Zambia) to strengthen their technical capacity and enhance the sustainability of radiotherapy facilities for cancer treatment with due attention to training of qualified staff and improving QA/QC programmes and maintenance schemes.

Increasing Agricultural Productivity

IAEA activities support the efforts of Member States to increase agricultural production through the development of genetically improved varieties, improved soil fertility, improved soil and water management practices and improved crop protection practices. Assistance to the strengthening of the region's technical capabilities to diagnose and monitor the occurrence of major transboundary epizootics, including contagious bovine pleuropneumonia (CBPP), African swine fever (ASF), rift valley fever (RVF), tick-borne diseases (TBD), and ruminant pests in support of national and regional sero-surveillance programmes continued to be an important activity of the TC programme in Africa.

One of the main areas of concentration of the TC programme in Africa was the transfer of the Sterile Insect Technique (SIT) in the context of area-wide integrated pest management (AW-IPM) in support of creating tsetse-free zones in selected areas in African Member States. The IAEA continued to foster its partnership with the African Union's Pan-African Tsetse and Trypanosomiasis Eradication Campaign (AU-PATTEC) and to contribute to the implementation of the AU-PATTEC Plan of Action through one regional, and ten national technical cooperation projects in Botswana, Burkina Faso,

Ethiopia, Kenya, Mali, Senegal, South Africa, Uganda, the United Republic of Tanzania and Zimbabwe. Through its support programmes, the Agency implemented technology transfer for feasibility assessment, capacity building and pre-operational support on tsetse SIT. Within the framework of a regional AFRA project, significant assistance is being provided to several AFRA member states through capacity building and provision of basic equipment to develop and facilitate the application of appropriate selection criteria for genetically improved livestock. An important contribution is being provided on the interaction between nutrition and reproduction for improved productivity and to use modern reproductive techniques through artificial insemination (AI) to improve productivity and reproductive efficiency of livestock in the region.

Managing Water Resources

Under the project co-funded by the Global Environment Facility (GEF) on the “Formulation of an Action Programme for the Integrated Management of the Shared Nubian Aquifer”, the IAEA continued its assistance to Chad, Egypt, Libya and Sudan as well as supported a training course on the Shared Aquifer Diagnosis Analysis, which aimed to develop the skills and strengthen the capabilities of the Member States in developing an effective implementation of the strategy and procedures set up by GEF at both the local and regional levels and a technical meeting on modelling to determine the most appropriate approach together with the relevant activities needed to enhance the Nubian conceptual model.

IAEA continued to support the “Ethiopian Ground Water Resources Assessment Programme” (EGRAP) which was developed with IAEA support under a previous project and has provided information crucial to the management of fragile water resources as well as the potential of geothermal areas. Isotope hydrology methods proved useful in providing supplementary data to previous geochemical information. In Madagascar, isotope techniques were used in studies for the national programme for borehole drilling in the Provinces of Fianarantsoa and Tuliar. The IAEA assistance has enabled the country to gradually develop national capability in assessing the recharge and flow regimes of ground water systems.

Sustainable Energy Development and Planning

IAEA support aims at helping the countries concerned in preparing a sustainable energy development strategy through conducting country studies to determine future energy demand and the best corresponding long-term energy supply mix. Special emphasis continues to be placed on training local experts to use IAEA energy planning tools to forecast energy demand, to identify least-cost options for electricity system expansion, to quantify environmental impacts, to evaluate the potential for diversifying energy sources, and to bring these and other factors together into a national decision making process.

IAEA assistance is being provided at different stages to several countries including Algeria, Egypt, Nigeria, Morocco and Tunisia to help with the key aspects of the planning of a nuclear power programme, including energy assessment, with special

emphasis on the requirements in terms of the legal and regulatory framework, human resources, optimal siting conditions, safety, and public acceptance.

Upgrading Radiation Protection Infrastructure and Enhancing Capability in Nuclear Security

The IAEA continued its assistance in 2007 to the African countries in the field of nuclear security, including training of law enforcement agencies in some aspects of illicit trafficking, physical protection of nuclear installations, detection and prevention of malevolent acts and management of radioactive sources. This assistance has been provided under a regional AFRA project which benefits all African countries, with funding from the IAEA Nuclear Security Fund.

Innovative ways for funding activities related to NEPAD

The Agency is aware of the necessity of increasing further the budgetary resources to further increase its support to African Member States in relation to NEPAD. To this effect, efforts are being pursued to develop strategic partnerships and strengthen further those already established. Special emphasis will be placed on strengthening further the partnership with AU-PATTEC, UNDP/GEF to support regional water resources assessment programmes of transboundary shared aquifers, the United Nations Human Security Trust Fund (UNHSTF), the African Development Bank (AfDB), the Arab Bank for Economic Development in Africa (BADEA), and the OPEC Development Fund for International Development.

Advocacy work to raise awareness on the implementation of NEPAD

The Agency supported the AFRA High Level Policy Review Seminar, arranged and hosted by the Government of Egypt, which was held in Aswan in late 2007. The Seminar was attended by delegates from 26 AFRA Member States. Delegations were led by high level representatives including eight cabinet ministers. The Seminar was also attended by the African Union Commissioner for Human Resources, Science, and Technology, and the Director General of AFREC. The FAO was also represented. With regard to the outcomes of the High Level Policy Review Seminar, the AFRA Member States adopted the Aswan Declaration and Plan of Action which highlights various priority issues to be addressed in the near term. A further major outcome of the Seminar was the adoption of the AFRA Regional Strategic Cooperative Framework (RCF) which will guide the AFRA programme for 2008-2013.