



Shared Pledge

Shared Vision

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The IAEA & Africa's New Partnership

The New Partnership for Africa's Development (NEPAD) is a pledge by African leaders to eradicate poverty and to promote sustainable growth and development. NEPAD is a "new framework of interaction with the rest of the world, including the industrialised countries and multilateral organizations." The agenda is based on regional priorities and development plans and its implementation relies on African ownership and management.

As a UN system organisation, the IAEA strongly supports the priorities identified in the Millennium Declaration and the New Partnership for Africa's Development. As a technical agency, the IAEA shares its recognized core competencies and technical expertise in support of NEPAD goals. Efforts aim at strengthening institutional capacity building in nuclear sciences and technology and promoting the sustainable application of nuclear techniques for social and economic development.

The IAEA has a membership of 34 African countries. The Agency supports them under its technical cooperation programme through provision of expertise, training opportunities and equipment in priority areas identified by the countries themselves.

For many African Member States, meeting basic human needs through the implementation of poverty alleviation strategies remains the top priority on the agenda for

national development plans and international cooperation programmes. In the context of sustainable development, special attention is being paid to enlarging the contribution of isotopes and nuclear techniques in major areas of economic and social significance and to promoting regional cooperation in nuclear science and technology related fields. As a partner in development, the Agency has promoted and undertaken programmes to support African countries' efforts to address priority development issues particularly in the areas of health care, food and agriculture and water resources development.

The IAEA technical cooperation mechanism includes support to the African Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA), which today has a membership of 30 African countries. For 2005-2006, the IAEA has allocated over \$37 million to Africa from its Technical Cooperation Fund (TCF), out of which \$12.5 million is earmarked to support regional cooperative projects.

In total, eight AFRA Regional Designated Centres have been empowered by AFRA Member States to help promote peaceful applications of nuclear techniques. They target areas of non-destructive techniques, mutation breeding and biotechnology, radiation oncology and medical physics, radioactive waste management, irradiation processing and maintenance of scientific equipment. Improving national nuclear institutions capability as well as manage-

ment skills of African managers, decision-makers and scientists at all levels of responsibility is one of the highest priorities of the AFRA programme. Particular attention is being paid to service-oriented activities that can generate income and contribute towards the sustainability of scientific and technical institutions. In various areas, regional cooperation is being promoted through networking to increase impact and to further self-reliance and long-term sustainability goals on the continent.

Ridding the Pest: Agriculture and Food Security

The IAEA's work in Africa supporting NEPAD's strategic priorities related to agriculture and market access is aimed at poverty alleviation and food security goals. Assistance deals mainly with the application of radiation and isotopes in pest control, with special emphasis on tsetse eradication, and improving crop production and increasing livestock productivity through better disease control, artificial insemination and feed supplementation. In terms of project funding, 20.8 % of the TCF resources are allotted under the technical cooperation programme for 2005-2006 to food and agriculture.



Among the many projects identified by African countries, the IAEA is actively supporting the initiative of the African Union (AU) to carry out and co-ordinate the Pan African Tsetse and Trypanosomosis Eradication Campaign (PATTEC), which was launched in Ouagadougou, Burkina Faso in October 2001. The objective is to free sub-Saharan Africa from one of the main persisting constraints to sustainable development. The tsetse infests 37 sub-Saharan African countries, 32 of them among the 42 heavily indebted poor countries in the world.

The Agency contributes directly in the field to the implementation of PATTEC's Plan of Action by support-

ing activities in several countries. The Agency support focuses on 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. Assistance has been provided to establish/upgrade tsetse-rearing facilities in Burkina Faso, Ethiopia and the United Republic of Tanzania; to perform test sterile fly release in Mali; to develop standardized recording, reporting and management system for field operations; to collect entomological and veterinary baseline data in target areas; and to carry out genetic studies of tsetse fly populations. Under the 2005–2006 programme, the Agency will continue providing support through national projects to activities connected to PATTEC in Botswana, Burkina Faso, Ethiopia, Kenya, Mali, Senegal, South Africa, the United Republic of Tanzania and Uganda. Under a regional project, support will be given to the Member States' relevant activities in terms of awareness raising, technical planning, training and institutional capacity building.

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Animal health and productivity is one special area with a focus on developing a regional capability for production and distribution of critical diagnostic kits. Playing key roles were the IAEA technical cooperation programme, with the technical backstopping and support from the International Laboratory of Molecular Biology (ILMB) at the University of California, Davis. Collaboration led to the transfer of technology to Africa for the production by means of advanced molecular biology techniques, of the indirect enzyme linked immunosorbent assay (iELISA) for the detection of the presence of rinderpest virus antibodies in livestock. This sensitive kit allows one to distinguish vaccinated from infected animals. This is essential for epidemiological studies and to prevent the spread of rinderpest while allowing the sale and export of vaccinated animals to disease-free regions. The rinderpest iELISA was accepted as a sero-surveillance test by the Office International Epizooties (OIE) in January 2004.

The Agency is also involved in combating desertification. One project covers the West African Sahel (Burkina Faso, Mali, Niger, and Senegal). The principal objective is

to help intensify sustainable food production in rain-fed areas while combating desertification.

Other activities are related to crop production. Several improved crop varieties have been developed and disseminated. IAEA assistance will continue to support efforts to develop high-yielding crops, drought-resistant crops and to rehabilitate saline lands. A substantial part of the programme pertains to the use of biotechnology combined with mutation breeding, notably for the improvement of neglected traditional crops, which usually provide a large part of protein for the rural population.

Healthy Outlook: Better Medical Care

In terms of project funding, over 27% of the TCF resources allocated for Africa for 2005–2006 are allocated to human health. The IAEA human health programme in the region focuses on the use of radiation and isotopes to prevent, diagnose, and treat disease, and also assists counterparts with medical equipment maintenance and networking using the latest information and communication technologies.



The IAEA concentrates on management of cancers, nuclear medicine for in-vivo and in-vitro investigations and human nutrition. Over the past years, more than 30 nuclear medicine and five radiotherapy centres have been established in Africa and at least another 40 radiotherapy hospital facilities have been upgraded.

Recently, special efforts have been made against some major health threats. The IAEA, for example, is assisting several sub-Saharan countries to enhance the capabilities of national referral centres to diagnose drug resistance in malaria and tuberculosis.

Among the most significant issues is the HIV/AIDS pandemic. As with other African development partners and relevant multilateral organizations, the IAEA is strongly committed to contribute to the international effort to fight this ever-expanding scourge. A major regional project focuses on building the necessary technical capacities

and human resources to enable Africa to undertake a programme of vaccine research and trials specific to African needs and requirements. It is expected that the involvement of the IAEA in the global effort towards tackling the HIV/AIDS scourge will bring institutional, operational and technical capabilities that can contribute to UNAIDS and its network.

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HIV/AIDS and malnutrition often operate in tandem, both at the level of the individual and the society. Poor nutritional status increases the risk of infection and progression of the disease. Another IAEA regional project aims to reduce all forms of malnutrition among the most vulnerable groups, including the HIV/AIDS infected, through the use of stable isotopes in evaluation and monitoring of nutrition intervention programmes/projects. Furthermore, a new five-year programme under AFRA will concentrate mainly on the management of the most common cancers, particularly HIV-related cancers.

Water & Energy: Twin Needs

Rational water resources management is a major goal in the context of sustainable development and crucial in a region of pronounced scarcity.

Intensive assistance over the past years has helped the majority of African Member States gain a better understanding and quantifiable estimates of their groundwater and surface water resources. They have helped to design and implement national strategies for exploitation and management of these resources and to enhance the safety of dams and artificial reservoirs.

Greater awareness of isotope hydrology techniques has been promoted amongst national authorities and the IAEA-supported programme has succeeded in developing local capabilities and making a tangible impact in participating countries. The 2005-2006 technical cooperation programme includes over 20 national and regional projects. Special emphasis will continue to be placed on the contribution of isotope hydrology techniques addressing practical problems related to water resource management in shared aquifers.



Energy is essential for sustainable development. NEPAD recognizes that limited access to the services provided by modern energy represent a major obstacle to social development and hinders the fight against poverty. Countries in the region need to strengthen their capacity in managing energy sector development in order to promote sustainable use of national resources, increase access to affordable energy services and thereby foster economic growth and improve living conditions of the population in the long-term.

The IAEA is providing assistance to 14 African countries with the aim to transfer methodologies and tools for energy demand forecasting, integrated energy planning, and least-cost electricity systems. The assistance in the energy sector is relevant to NEPAD short-term programmes. Possibilities exist of establishing linkages with NEPAD energy projects, which include studies for sub-regional interconnections and power systems and support to capacity building. Further integration of IAEA work with NEPAD projects would contribute to capacity building and facilitate regional networking and cooperation among energy system specialists.

Next Steps: IAEA & NEPAD

In these and other areas the IAEA remains committed to supporting NEPAD and endeavours to respond to the major development challenges of the African region. Future IAEA activities will further strengthen the support to government plans and regional initiatives aiming at improving health care, food and agriculture, water resources development, pest control and eradication, combating diseases in livestock and crops, and managing natural resources in the context of sustainable development.

In this regard, support to institutional capacity building through human resources development and Technical Cooperation among Developing Countries (TCDC) will continue to receive special attention to respond to the major development challenges of the African region in line with the priorities identified by NEPAD and Member States. A

new regional project will aim to incorporate and strengthen the teaching of nuclear techniques that address important developmental problems in curricula of institutions of higher learning, especially in Least Developed Countries (LDCs). Furthermore, the IAEA is helping African countries close the digital divide. The emphasis is on expanding access to and use of Information and Communication Technologies (ICT) and setting up “tele-centers”. New ICT “tele-centres” have been established in four countries, about 50 specialists were trained on methodology and pedagogy, and new educational materials were developed.

The promotion and development of nuclear techniques for socio-economic development requires an adequate radiation safety infrastructure to protect ionizing radiation workers, the public at large and the environment from the hazards associated with the misuse of radiation. Significant efforts are being deployed to improve the radiation protection infrastructure in all African Member States. They include the establishment of a regulatory framework and enforcement of legislation and regulations and special assistance for the safe conditioning and disposal of radioactive sources.

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The challenges of NEPAD and the Millennium Development Goals call for better coordination, more coherent approaches and increased synergies among UN agencies working in Africa. The IAEA has a special interest in developing active partnerships with other sister agencies especially in areas related to meeting basic human needs such as the control of human communicable diseases (HIV/AIDS, malaria, tuberculosis), water resources development, and land management. The hope is that in the months and years ahead, more support can come to African countries in their work to cut poverty and promote sustainable development.

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