United Nations Office of the

High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States

Report of the Secretary-General

Implementation of the Vienna Programme of Action for Landlocked Developing

Countries for the Decade 2014 – 2024

I. Introduction

The International Atomic Energy Agency (IAEA) supports its Member States, including 30 Land Locked Developing Countries (LLDCs)¹, to build their national capacity in the peaceful, safe and secure use of nuclear science and technology to address global challenges and their socio-economic development priorities. Through its technical cooperation (TC) programme, the IAEA assists them by building human resource capacity through long- and short-term training, rendering expert advice, provision of equipment and transfer of technology. Areas of support cover human health, food and agriculture, water and the environment, industrial applications, safety and energy.

This report highlights major IAEA contributions to LLDCs as of 2019, in the context of

In 2020, the IAEA launched a four-year technical cooperation project with the Lao People's Democratic Republic aimed at establishing basic non-destructive testing infrastructure for building hydropower plants for electricity generation, which need to meet international safety standards. The project is implemented with the support of experts from Viet Nam in the framework of a formal agreement signed in 2019 between the IAEA and the two countries on Strengthening South-South and Triangular Cooperation.

IV. Follow-up and review

Energy

Promote energy efficiency and support LLDCs to expand and upgrade energy infrastructure, scale up projects on cross-border interconnectors and improve access to energy, including clean, sustainable and renewable energy

Please see section on Energy.

Structural Economic Transformation

Provide tools, technical assistance and capacity building to LLDCs to formulate policies and strategies aimed at diversifying their economies, adding value to their products and supporting development of productive sectors

The Semipalatinsk Test Site (STS) in Kazakhstan, a territory of around 18 000 square kilometres, was the site of nuclear tests conducted between 1949 and 1989. The IAEA

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In the Central African Republic, the IAEA supported the implementation of new practices that have led to a three-fold increase in cassava yields compared to traditional farming practices. Around 300 farmers in three experimental areas were able to increase their production from 15 tons to 50 tons per hectare. These improved soil and nutrient management practices are being extended to other regions in Central Africa Republic. Brochures were produced with the support of the project and translated into Sango, the local language.

The provincial laboratory network of Uganda's veterinary service has been reinforced with the support of the IAEA. Enhanced capacity in the diagnosis of animal diseases has increased the number of samples analysed annually from 30 000 to over 65 000. Training provided by the IAEA has improved shd.kg)dv(k9lg0-ah(Ask)1ls(Afnh)a2t(Af)J0r(ng)27(20)-1 (ga)3(67)41(h)(0AFTA)TJd2The)d)to(nt)

through assistance in enhancing human and institutional capacities and further developing the radiation safety infrastructures at the country level.

COVID-19 Assistance: The IAEA provided diagnostic kits and equipment to 28 LLDCs to enable them to perform testing and diagnosis. The Agency has also conducted COVID-19 related webinars to support health professionals who work in radiation medicine during the global pandemic in Member States including 336 professionals in LLDCs Member States.

The webinars provide advice to nuclear medicine, radiology and radiation oncology departments, and offer best practices in rotation policy, use of personal protection equipment, and other institutional considerations and experiences. The IAEA has made online information materials on COVID-19 available on a dedicated page on the Human Health Campus. The page offers responses to frequently asked questions from laboratory and health professionals, and includes links to recorded webinars, COVID-related articles, and other material.

Building Radiation Protection Infrastructure: The IAEA is providing support to Member States, including LLDCs, in building their regulatory infrastructure to ensure radiation protection and safety of people, society and the environment. For example, in 2020, the IAEA supported capacity-building for the governmental authorities and specialists in Kyrgyzstan. The participants visited the State Office for Nuclear Safety of the Czech Republic and the Agency of Nuclear and Radiation Safety of Georgia to gain an understanding of how different regulatory bodies are organized and function, with a special emphasis on how authorization and inspection activities for radiation sources and radioactive waste facilities are carried out.

The IAEA is assisting Paraguay to incorporate equipment, improve the structure of the regulatory framework, and train human resources to develop national capacities to establish radiation safety and national security infrastructure.

Bolivia benefitted from IAEA support to strengthen its nuclear legislative and regulatory framework and support has been given to the national safety authority for human capacity development and tools to fulfil its mandate of licensing and inspecting facilities that use ionizing radiation.

Promote multi-stakeholder dialogues and experience sharing

Please see SSTC section above.

Means of implementation and international support

Enhance efforts of LLDCs to mobilize adequate domestic and international resources

As part of its efforts to help Member States mobilize the necessary resources for improving their cancer control capacities, the IAEA has continued to assist LLDCs develop bankable documents. During 2019-2020, the IAEA supported Chad, Eswatini and Uzbekistan to develop comprehensive, multi-million-dollar bankable documents for establishing nuclear medicine and radiotherapy services.

Other areas

Enhance climate change mitigation and adaptation and disaster risk reduction efforts and support resilience building of LLDCs to the adverse impacts of climate change, natural, manmade, technological, biological and environmental hazards and environmental degradation, including desertification, land degradation, biodiversity loss, drought and receding glaciers

As part of the capacity building process for energy system analysis and planning, the IAEA provides assistance to Member States for the evaluation of the role of nuclear energy in national

climate change mitigation strategies through a comprehensive set of IAEA tools and methodologies available to Member States.

In 2020, all LLDC Member States in Europe and Central Asia received assistance to enhance the productivity and resilience of major food crops (legumes, cereals and others) to climate

IAEA approved an off-cycle interregional technical cooperation project aimed at building the infrastructure and human capacity needed to implement **ZODIAC** activities. The Agency will continue to seek opportunities for establishing partnerships with national and international organizations as well as non-traditional partners to create synergies with other initiatives.

Help LLDCs deal with the impacts of the COVID-19 crisis

At the outset of the COVID-19 outbreak, LLDCs were very much in need for support and have turned to the IAEA to provide them with support. The IAEA quickly responded and adjusted to new circumstances reviewing and prioritising the planned support in accordance within available means.

The IAEA will continue to support its Member States, including LLDCs, to fight COVID-19 disease through the provision of equipment and training, as needed and as resources become available. In addition, the IAEA will continue to implement the planned activities under its Technical Cooperation current programme and adjust as necessary to address the evolving needs and in particular those that have been most affected by the pandemic.

Looking forward, and in order to be better prepared to deal with the challenges of zoonotic diseases, the IAEA has launched a new initiative entitled 'Zoonotic Disease Integrated Action' or ZODIAC. It will allow for the continuation of the current assistance as well as its integration to strengthen the ability of the IAEA and its Member States to prepare for and respond to zoonotic disease threats and outbreaks, which will include, but not be limited to: enhanced national capabilities of Member States for surveillance, early detection and intervention against emerging/re-emerging zoonotic diseases; availability of real-time decision-making support tools for timely interventions; access to novel technologies for early detection of emerging zoonotic diseases; and access to data on the impact of zoonotic diseases on animal and human health.

Support LLDCs to remove the barriers to achieving gender equality and the empowerment of women and girls

The IAEA mainstreams gender considerations in all relevant programmatic activities, including efforts to enhance the participation of women as training participants, fellows, scientific visitors, project counterparts, researchers, experts and panellists. IAEA staff and national counterparts are encouraged to use a gender lens when designing and implementing IAEA projects.

In March 2020, the IAEA launched the Marie Sklodowska-Curie Fellowship Programme (MSCFP), which aims to help grow the number of women in the nuclear field, supporting an inclusive workforce of both men and women who contribute to and drive global scientific and technological innovation. The programme has supported one hundred female students in 2020, including 10 from LLDCs Member States, through scholarship for up to two years for Master's programmes in nuclear science and technology, nuclear safety and security, or non-proliferation studies.

In 2020, the IAEA supported the establishment of a national chapter of Women in Nuclear (WiN) in

Partnership and coherent coordinated efforts by all stakeholders are important for the delivery of the assistance. South-south partnership and triangular partnership proved to be particularly important for building their capacities.

Statistical Annex

IAEA LLDC Assistance Provided Member States in 2019 In Euro

Paraguay	261 403	99 787	imPACT Review 2016 NCCP support 2021
Republic of Moldova	933 497	737 998	
Rwanda	245 372	277 041	imPACT Review 2014
Tajikistan	1 374 235	451 497	
Turkmenistan ⁱⁱ			
Uganda	509 559	546 119	
Uzbekistan	363 742	573 416	Bankable document imPACT Review 2014
Zambia	232 294	640 003	NCCP support 2021
Zimbabwe	380 030	345 905	imPACT Review 2010

 $^{^{\}rm i}_{\rm ii}$ These figures are preliminary.