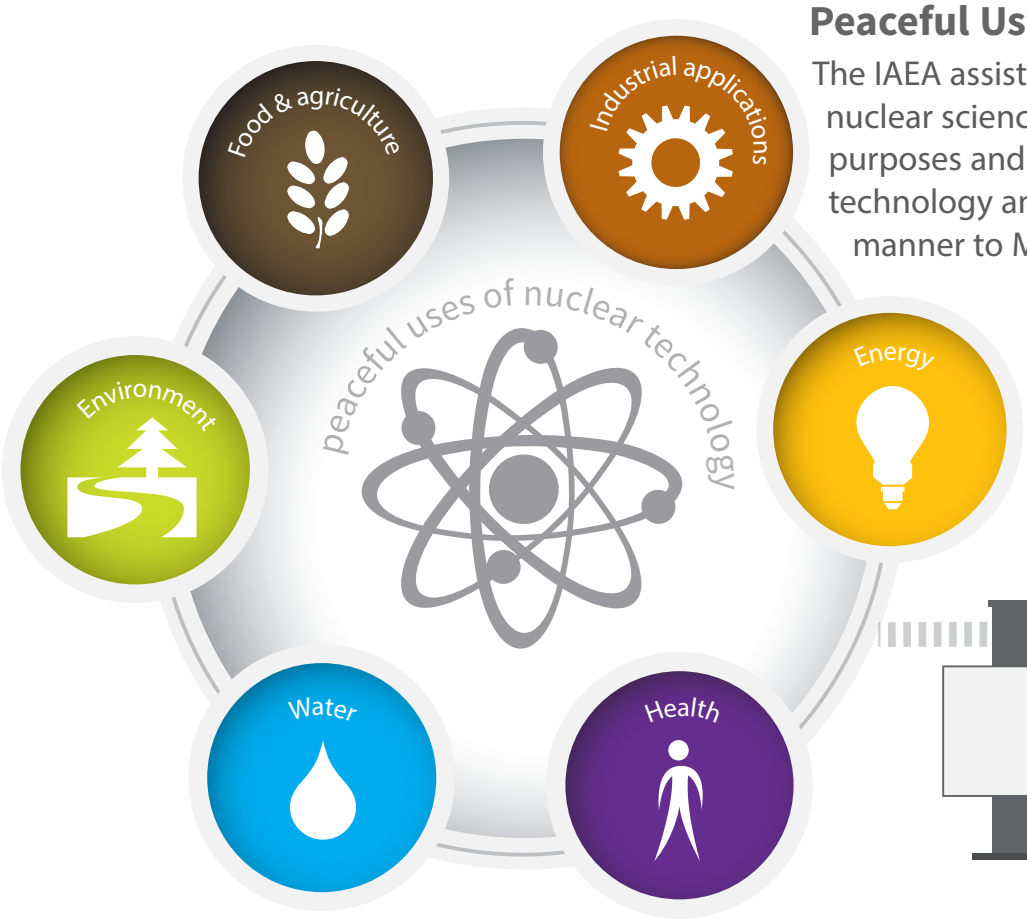
IAEA AT A GLANCE
atoms for peace & development

The International Atomic Energy Agency

is the world's foremost forum for scientific and technical cooperation in the peaceful use of nuclear technology. Established by the United Nations as an independent organization in 1957, the IAEA serves 171 Member States.

3 thematic priorities:

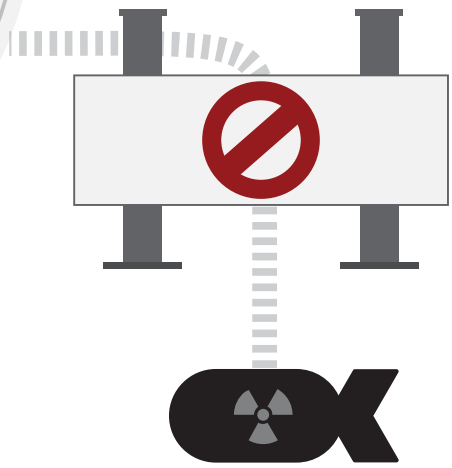


1 Peaceful Uses of Nuclear Technology

The IAEA assists its Member States in using nuclear science and technology for peaceful purposes and facilitates the transfer of this technology and knowledge in a sustainable manner to Member States.

2 Safety & Security

The IAEA provides a strong and sustainable global nuclear safety and security framework, working to protect people, society and the environment from the harmful effects of ionizing radiation.



3 Non-Proliferation

Through its safeguards system, the IAEA verifies that States are honouring their international obligations to use nuclear science and technology only for peaceful purposes.

Did you know about...

...the many peaceful uses

Nuclear technology is used everywhere in our daily lives. Within the context of global developmen
They are supported by specialized IAEA laboratories in Seibersdorf, Austria, and Monaco, as well a
assistance, nuclear techniques are put to use in various areas, as illustrated below. Close collabo
impact of IAEA support towards the achievement of Member States' developm

Health

To increase access to health care, the IAEA supports Member States, in particular low and middle income countries, with assistance in the form of equipment, expert guidance, training and knowledge exchange to aid in the use of nuclear techniques for diagnosing, treating and managing cancer, cardiovascular and other non-communicable diseases. Good health also relies on proper nutrition and access to food. Nuclear techniques can help to monitor and sustainably address malnutrition in all its forms, from severe malnourishment to obesity.

"Nuclear science and technology gave us the tools to understand and associate body composition with physiological changes, which can help to prevent disease later in life."

— Manuel Ramirez, Coordinator, Research Centre for the Prevention of Chronic Diseases, Institute of Nutrition of Central America and Panama, Guatemala

Environment

Nuclear and isotopic techniques provide researchers with tools to study the planet's past and predict its future. They are used to monitor pollution trends, assess their impacts and treat effluents, while also improving global understanding of the effects of climate change on both terrestrial and oceanic systems.

"The radionuclide detecting instrument has been of great help in sample analysis."

— Vajira Waduge, Director, Life Science Division, Atomic Energy Board, Sri Lanka

Food and agriculture

A number of countries, particularly those relying heavily on agriculture for food and livelihoods, are turning to nuclear techniques to enhance agricultural productivity and food security and safety. IAEA projects and programmes — developed in partnership with the Food and Agriculture Organization of the United Nations — help to provide important equipment and expert guidance, as well as technology and training. Nuclear techniques can be used safely and effectively in breeding improved crop and plant varieties, including vitamin or mineral-enriched varieties; controlling animal and plant pests and disease; improving food safety; enhancing livestock reproduction and nutrition; and strengthening soil and water management.

"I no longer worry about the erosion of my land. My income has stabilized and I am determined to offer my children the education I could never get." — Dao Thanh Canh, farmer, Viet Nam

# of nuclear technology?

nt, IAEA services underpin collective efforts for the peaceful use of nuclear science and technology. s the Technical Cooperation Programme, networks and collaborations with partners. Through IAEA ration between the IAEA, United Nations organizations and other partners helps to maximize the ent priorities, including those under the Sustainable Development Goals (SDGs).

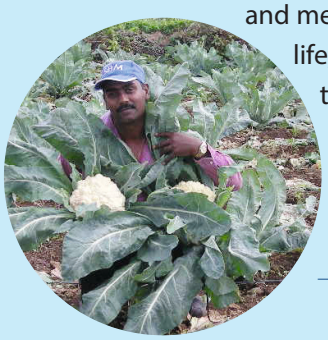
Nuclear energy

Access to affordable energy directly improves human welfare. Current projections foresee electricity demand increasing by 60 to 100% by 2030. Low carbon sources of energy, such as nuclear energy, minimize the greenhouse gases emitted in energy generation and mitigate the negative impact of climate change on development. The IAEA helps countries using or planning to use nuclear power to do so safely, securely, economically and sustainably.

"Thanks to the IAEA's input, the government took a more holistic approach to the issue of uranium mining."

— Iddi Mkilaha, Director General, Tanzania Atomic Energy Commission

Water



Access to safe water sources is essential to supporting growing populations, accelerating economic development and meeting the demands of changing lifestyles. The quality of ocean water not only impacts marine life, but also affects people who rely on the sea for their livelihoods. Many countries have now turned to the IAEA for assistance in using nuclear and isotopic techniques to better understand water in order to sustainably manage and protect this precious resource for the future.

"Drip irrigation is a very good system for us small-scale farmers. It can really help increase our yield and income."

— Manoj Chumroo, farmer, Mauritius

Industrial applications

A range of safe, tested nuclear techniques can be used to identify and assess the properties of different materials, measure pollution levels, sterilize and disinfect components, monitor and optimize industrial processes and change chemical, physical and biological properties to produce novel materials. Radiation can be used for both the analysis and processing of a range of substances.

"We have through this technology been able to disinfest a number of ancient items from 500-year-old religious books infested with fungi to the precious icons of the Izvoarele Orthodox Church."

— Valentin Moise, Director, IRASM Radiation Processing Centre, Bucharest, Romania

Non-Proliferation

A principal role of the IAEA is to deter the proliferation of nuclear weapons through the early detection of the diversion of nuclear material or the misuse of nuclear technology and, in the absence of such diversion or misuse, provide credible assurances that States are honouring their legal obligations to use nuclear material and technology only for peaceful purposes.

To do so, the IAEA applies various technical measures referred to as 'safeguards' to verify the correctness and the completeness of the declarations made by States about their nuclear material and activities. IAEA safeguards are an essential component of the international non-proliferation regime.

Safety & Security

The protection of people and the environment from the harmful effects of ionizing radiation is at the heart of the IAEA's work. IAEA assistance also facilitates safe and secure transport, handling and use of radioactive materials in fuel cycle technologies, radioactive sources for energy production and other radiation related purposes. This support includes facilitating the proper and sustainable mining of essential chemical elements for nuclear energy production, effective decommissioning of nuclear facilities and management of radioactive waste and spent fuel from cradle to grave.

Behind each IAEA project, programme and service lies a foundation of safety and security, based on IAEA standards and guidelines. The IAEA provides Member States with the assistance they need when they embark on using nuclear science and technology, through review services and facilitating tailored, dedicated training and emergency preparedness exercises. Ensuring that these uses remain peaceful and are properly managed in order to protect people and the environment are paramount to the IAEA's services to Member States.

IAEA Quick Facts

Year Founded	1957	**Headquarters**	Vienna, Austria
Member States	171	**Liaison Offices**	Geneva, Switzerland New York, USA
Number of Employees	ca. 2,500	**Regional Offices**	Toronto, Canada Tokyo, Japan
Laboratories	19	**Regular Budget**	approx. €377 million

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