



EXPLORE
PEACEFUL
NUCLEAR SCIENCE

HELPING
PEOPLE
AROUND THE WORLD

USA

The United States' IAEA Peaceful Uses Initiative

PROJECTS AROUND THE WORLD

ERITREA
AFRICA

Molecular techniques are helping farming experts to foster...

BOGOTA, COLOMBIA
SOUTH AMERI...
Atomic techniques allow scientists in Bogota to ensure...

PARAGUAY
SOUTH AMERI...
Nuclear science lets scientists fortify Paraguayan crops...

SOUTH AFRICA
AFRICA

South Africa's highly developed fruit export sector finds much needed defense from pests.

MADAGASCAR
AFRICA

Nuclear science is combating disease and enhancing fertility for Madagascar's vital supply of livestock.

EL SALVADOR
NORTH AMERI...
Atomic techniques allow scientists in El Salvador to secure...

ERITREA
AFRICA

Molecular techniques are helping farming experts to foster...

COTONOU, BENIN
AFRICA
Nuclear techniques are fortifying crops and livestock in Be...

CHINA
ASIA

Nuclear techniques are helping to expand China's abi...

KENYA
AFRICA
Nuclear science is combating disease and enhancing ferti...

SAUDI ARA...
MIDDLE EAST
Nuclear techniques enable farmers in Saudi Arabia to ma...

KAMPALA, UGANDA
AFRICA
Nuclear techniques are helping to expand Uganda's...

ACCRA, GHANA
AFRICA
Nuclear scientists are integrating isotope techniques in the ef...

KENYA
AFRICA
Cancer is a growing threat in Kenya, and nuclear science is...

KUALA LUMPUR,...
ASIA

Nuclear technology helps combat crop-threatening algae...

PHILIPPINES
ASIA
Nuclear technology helps combat crop-threatening algae...

ZIMBABWE
AFRICA
Molecular techniques are helping farming experts to foster...

SRI LANKA
ASIA
Nuclear science helps farmers secure the fertility of Sri Lanka'...

THAILAND
ASIA
Nuclear scientists are integrating isotope techniques in the ef...

FOOD

HEALTH

WATER

NAMEY, NI...
AFRICA

ZAMBIA
AFRICA

BANGLADESH
ASIA

RIO DE JANEIRO,...

PARAGUAY
SOUTH AMERI...

EL SALVADOR
NORTH AMERI...



FOOD

WHAT'S AT STAKE:

- People around the world share a common need for a safe, nutritious, and reliable supply of food.
- Desertification, changes in water patterns, and climate change lead to low crop and livestock productivity.
- Rising costs of fertilizer and seeds and changes in land use patterns affect the availability of food and increase prices, which may push millions of people deeper into poverty.
- 925 million people globally do not have enough to eat.
- With world population expected to reach 9 billion by 2050, ensuring food security demands significant advances in agriculture.
- Land degradation threatens nearly 1 billion people in some 100 countries.
- It is estimated that roughly one third of world's land area is experiencing desertification.

HOW ATOMS HELP:

- Nuclear technology can help weed out pests like fruit flies, moths, and tsetse flies that threaten both livestock and fruit and vegetable crops.
- Isotopes allow agriculture experts to manage animal nutrition, reproduction, breeding and health.
- Advanced nuclear science offer significant advantages over other methods in diagnosing, controlling, and eradicating diseases that threaten livestock and hinder trade.
- Atomic science can be used to develop crops that are better adapted to the changing environment.
- Isotopic techniques can be used to study soil erosion and land degradation problems.
- Nuclear science is a powerful tool for detecting and controlling toxins and contaminants in the food supply.



HEALTH

WHAT'S AT STAKE:

- Poor health limits the potential of people everywhere, especially in developing countries.
- Cancer, malaria, tuberculosis, HIV/AIDS and malnutrition are major health concerns for developing countries.
- Cancer has become one of the leading causes of death worldwide, with 11 million cancer deaths projected for 2030.
- 70% of cancer deaths happen in low- and middle-income countries.
- 1.3 million people die of malaria each year; 90% are children under five.

HOW ATOMS HELP:

- Radiation therapy is a major part of cancer treatment, and it requires trained specialists, hi-tech equipment and an established infrastructure.
- Nuclear science helps monitor the efficacy of drugs used to treat malaria and TB, and can help improve treatment effectiveness.
- Nuclear medicine and imaging techniques can save lives, restore health, predict the cause of disease and alleviate suffering.



WATER



WHAT'S AT STAKE:

- Environmental degradation and lack of clean water pose fundamental challenges to sustainable development.
- People cannot prosper without safe water to drink, healthy soils for crops and livestock, and a clean and stable environment.
- More than one billion people across the globe do not have access to safe drinking water.
- More than 2.2 million people die each year from diseases linked to poor water and sanitary conditions.
- Half the world's freshwater wetlands have been degraded or lost entirely.


HOW ATOMS HELP:

- Scientists can use isotopes to examine existing water resources and identify new ones.
- Isotopes also help identify and combat sources of pollution and saline intrusion.
- Regional monitoring networks based on isotopes help improve water resource management.
- Radiation processing increases environmental safety through effective treatment of wastewater.
- Molecular techniques allow early detection and prevention of harmful algae blooms.
- Land degradation threatens nearly 1 billion people in some 100 countries.
- It is estimated that roughly one third of the world's land area is experiencing desertification.






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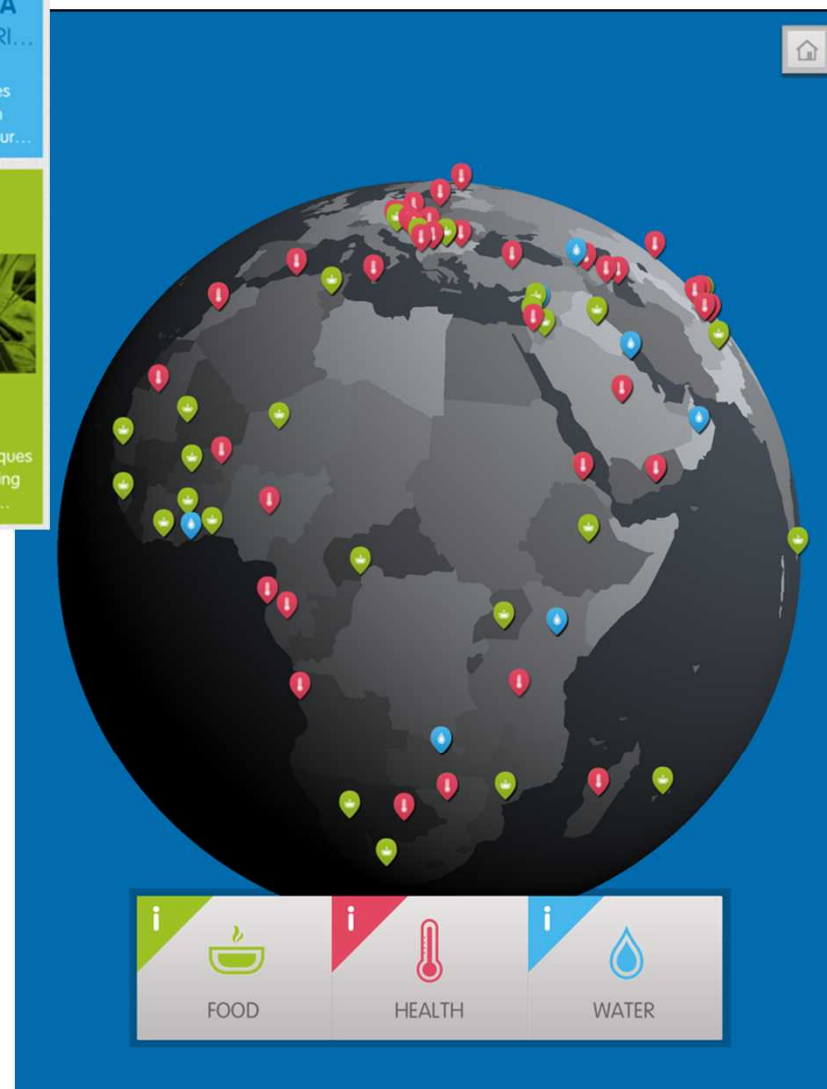
SENEGAL AFRICA

Farmers in Senegal are using nuclear technology to tackl...

ERITREA AFRICA



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VIETNAM

Theme: Health

Location: Asia

Share

GROWING VIETNAM'S CANCER CARE INFRASTRUCTURE

Nuclear techniques are helping to expand Vietnam's ability to care for its cancer patients.

The IAEA is helping Vietnam's medical establishment to save the lives of its cancer-stricken patients with expanded use of radioisotope and radiation treatments. It is also working to enhance the care provided in local centers by using a technique that improves cancer prognosis, approaches to the disease and surgical procedures. Atomic techniques allow for earlier detection of the disease, which is a key to effective treatment. A key component of this effort is the establishment of cyclotron facilities and centers for medical applications and research in the country.
