

WATER AND THE ENVIRONMENT

Water security has become a critical issue in human development and environmental and economic sustainability, particularly in the light of global population growth.

The IAEA promotes the application of nuclear techniques to help locate, manage and conserve fresh water, as well as to protect the oceans. It provides Member States with training in isotope hydrology, as well as expert services and analyses to broaden the understanding of natural freshwater systems. Nuclear techniques are used to study environmental processes and the impact of climate change on the marine environment.



Scientists from the IAEA International Laboratory of Marine Radioactivity in Monaco drawing water samples from the Mediterranean in 1971 and using isotopic techniques to study the effects of radioactivity in the sea and on marine life.

Photo: IAEA

Scientists at the IAEA Environment Laboratories in Monaco in 2011 using isotopes to study biological processes in order to understand how marine organisms react to ocean acidification and warming.

Photo: IAEA



A team of scientists lowering core sediment sampling equipment off the coast of Honduras in 2009 to study the impact of water pollution using nuclear techniques.

Photo: IAEA

WATER



In the Gulf of Fonseca off the coast of El Salvador, an IAEA-trained researcher uses radiotracers in 2010 to analyse the origin, content and route of marine pollution.

Photo: IAEA



Thanks to nuclear techniques, a Vietnamese farmer has been able to control soil erosion on his coffee plantation.

Photo: Dalat Nuclear Research Institute, Viet Nam

ENVIRONMENT

Isotopic techniques are used to conduct comprehensive assessments and management of water resources for domestic, industrial and agricultural uses.

Photo: IAEA

