



# IAEA

International Atomic Energy Agency

*Atoms for Peace*

September 2008

## ***Assessing radioactivity in the Gulf of Aqaba, Jordan***

### ***The challenge...***

The Jordan Atomic Energy Commission requested support from the IAEA to develop a monitoring programme for radionuclides in its marine environment, complementing Jordan's comprehensive monitoring programme for radioactivity in the terrestrial environment.

### ***The project...***

To strengthen national capabilities to monitor and assess levels of anthropogenic radionuclides and naturally occurring radioactive materials, the IAEA provided expertise, training and equipment, and advised on the design of the monitoring programme.

A sampling mission in the Gulf of Aqaba was organized during March 2008 to produce the first data on marine radioactivity. This will serve as a baseline study and will optimize the locations of sampling sites for the programme.

Scientific, technical and logistical support was provided by the Marine Science Station, University of Jordan and Yarmouk University. For work at deep water stations, support was given by the staff of the Interuniversity Institute for Marine Sciences and the Hebrew University of Jerusalem at Eilat.

### ***The impact...***

Water and sediment samples were collected from six stations and analysed in Jordan with support from the IAEA. A deep water sediment coring campaign is further required to quantify the sources and pathways of contaminants and determine geochronologies in undisturbed sediment cores.



The chartered vessel "Seabell" in Aqaba Bay



Filtration of water samples to separate particulate and dissolved fractions



Collection of sediment

JOR/7/005: Assessment of the Marine Radioactivity in the Area of the Gulf of Aqaba (Phase II)