cosmic rays. Unfortunately, the Second World War stopped all scientific activity in Poland. A large fraction of Polish physicists perished in the period 1939-1945. After the World War nuclear physics of low and high energy was rebuilt in Warsaw and Krakow. Already in 1952 Marian Danysz and Jerzy Pniewski discovered the first hypernucleus. This important discovery was essential to understand the properties of numerous new particles found in cosmic rays. Polish physicists entered intensive collaboration with both CERN and Dubna and took part also in research at other centers in Europe (DESY, GSI, GANIL, Julich, SACLAY) and the United States (Fermilab). At present the research is concentrated in Warsaw and Krakow (the two largest centers), and smaller teams, mostly theorists, are also in Bialystok, Katowice, Kielce, Lublin, Lodz and Wroclaw. Several years ago a heavy ion cyclotron was built in Warsaw. Among the important discoveries made by Polish nuclear physicists one may mention the theoretical works on superheavy elements and the recent discovery of the two-proton radioactivity.

A SUCCESS STORY OF REGIONAL PROJECTS IMPLEMENTED FOR THE MANAGEMENT OF MARINE ENVIRONMENT. TURKISH EXPERIENCE RELATED TO THE BLACK SEA AND THE MEDITERRANEAN SEA

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A wide scope Regional Technical Co-operation Project RER/2/003 "Marine Environmental Assessment of the Black Sea Region" is implemented by the International Atomic Energy Agency (IAEA) in the period 1995-2001. This project was initiated in response to the needs of participating Member States - the six Black Sea coastal countries (Bulgaria, Romania, Ukraine, Russian Federation, Georgia and Turkey) to establish capabilities for reliably assessing radionuclides in the Black Sea environment and applying tracer techniques to marine pollution studies

The project has various important aspects: Scientifically; one of the major environmental issue radioactivity pollution is addressed. Technically; laboratory capability for transuranic analysis is being developed. Economically; the reversing the ecological deterioration and developing sustainable uses of the Black Sea and its natural resources is one of the major interests. Politically; responsibility of pollution control and rehabilitation plans of six Black Sea countries are addressed through various convention and declarations. Socio-economically, fisheries and tourism sectors are expected to benefit.

Highlights from the joint radioactivity-monitoring program of the project among six Black

Sea countries are outlined. Examples from the Turkish monitoring work consist of the routine sampling of seawater, algea, mussels, fish samples and beach sand from the selected stations along the Black Sea coast are presented for illustration.

The success of the Black Sea regional project has given rise to a new regional project "Marine Environmental Assessment of the Mediterranean Region" based on the request of the member countries, which will be initiated in 2005 by the IAEA. The initial phase the project, its objectives and the schedule will be summarized

Key words: marine radioactivity, environmental management, Black Sea, Mediterranean Sea, regional cooperation.

ACTIVITIES AND COOPERATION OPPORTUNITIES AT ÇEKMECE NUCLEAR RESEARCH AND TRAINING CENTER

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Turkey's familiarization with nuclear energy began in July 1955, when it signed a bilateral agreement with the USA to cooperate in the "peaceful uses of nuclear energy". In 1956, the Turkish Atomic Energy Commission (TAEK) was created. Çekmece Nuclear Research and Training Center (ÇNAEM) was formally established in 1962. Turkey's first research reactor, a pool-type 1 MW reactor at ÇNAEM site, known as TR-1, went critical in 1962 and was shut down in September 1977. Strong collaborations with national and international organizations have been achieved for the promotion of the peaceful uses of nuclear energy and its applications in Turkey. Meanwhile the TR-2 reactor (5 MW) was commissioned in 1984 in order to meet the increasing demand of radioisotopes.ÇNAEM as a subsidiary of TAEK is charged to perform R&D activities on whole area of nuclear science and technology, such as research reactor, nuclear safety, nuclear fuel technology and fuel analysis codes, nuclear materials, NDT, nuclear electronics, accelerator, radiobiology, cytogenetics (biodosimetry), radioecology, marine radioactivity, radiation safety, dosimetry, radioactive waste management, calibration of nuclear instruments, environmental monitoring.

Possible cooperation fields between ÇNAEM and other institutions are as follows: measurements of radioactivity in the environment, radioecological studies of radioactivity levels in environmental samples, indoor radon measurements, development and production of radiopharmaceuticals, radiation cytogenetics (biodosimetry), training in NDT, certification of industrial workers who use non-destructive testing devices, production of UO_2 and $(U,Th)O_2$