



Odessa National I.I. Mechnikov University

The Odessa National University (ONU) was founded in 1865. ONU has 8 Faculties, 3 Educational Institutes and 72 chairs. ONU prepares bachelors, holders of master and Ph.D. degrees in 30 specialties. There are more as 20.000 students from 25 countries. The University disposes of 17 autonomous scientific laboratories, a scientific library, botanical gardens and palaeontological, zoological, geological-mineralogical museums, in which more than 1700 collaborators work. Odessa National I.I. Mechnikov University is one of the biggest Universities of Ukraine with scientific Department from 800 scientists, specialists, engineers and administration.

The departments involved within the framework of the project are the Regional Centre for Environmental Monitoring and Ecological Research (RCIEMER) and the Department of Information Technology.

The main fields of RCIEMER activities are focused on:

- Improvement of education and training in environmental, biological, micro biological and ecological sciences.
- Researches in fields of marine microbiology, hydrobiology and ecology; environmental monitoring, management and protection; coastal zone studies; atmospheric and marine chemistry; climate and environment and health; modelling of natural ecosystems; improving the quality of life and management of living resources; environment and sustainable development, environmental sensing, environmental impact assessment.

RCIEMER has already taken part in various national and international environmental oriented programmes and projects. RCIEMER has monitored the ecosystems of the Black Sea and the Sea of Azov, analysis and forecasting the present regional ecological situation in marine and terrestrial ecosystems. Long-term studies have been carried out on biodiversity, hydrobiology, microbiology and ecotoxicology of the Danube Delta Lakes and the Black Sea ecosystems. RCIEMER has a Development Research and Educational facility in the western part of the Black Sea near to the Danube Delta. The work plan involves the regular monitoring of the Black Sea zone near the station.

International research activities:

- FP6 NitroEurope Project: 017841 (GOCE). (2006-2011)
- FP6 BlackSeaScene project 022868 (RICA). (2005-2008)
- TACIS CBC Programme. Technical Assistance for Lower Dniester basin water management planning. (2006-2007).
- INTAS - 04-77-7112. New methods of information treatment for management of water quality in river basins. (2005-2007)
- ESA-IAF Project "ERUNET" (European-Russian-Ukrainian GMES Network for Monitoring of Oil Spills and Oil & Gas Pipelines) (2004-2005)
- TACIS CBC Programme. Lower Danube lakes: sustainable restoration and protection of habitats and ecosystems. (2000-2003).
- INTAS-RFRB-97-1435 "Study on nitrogen compounds in the atmosphere over the Former Soviet Union related to acidification and climate change."(1999-2001)
- INTAS-97-1860 "To establish the network of scientists for improving NIS data on atmospheric chemistry" (1999-2001)
- INCO - Copernicus Project "Oil and herbicide pollution in the Black Sea: detection and biological impact". 1997-2000
- RTD Cooperation with third countries and international organizations "International project "Geological History of Yucca Mountain (Nevada) and the Problem of a High-Level Nuclear Waste Repository", USA, Ukraine, Russia. (1995-1998)

The project will essentially be implemented by:

- Dr. Volodymyr Medinets, team leader - expert for Monitoring and Ecological Research, since 1982 to present - the main activity as principal investigator or team leader in national and international scientific projects in marine ecology, atmospheric chemistry, radioecology for the Black Sea, the Danube River, the Dniester Rivers and other freshwater bodies.
- Dr. Igor Souchkov – Geology and Bottom sediments of the Black sea and geological issues in basin of the Black Sea.
- Dr. Yaroslav Bilanchin – Land cover and soils quality in southern part of Ukraine.
- Dr. Natalia Kovalyova – Microbiology and marine biology of the Black sea.
- Dr. Yulia Molodozgen. – Regional Economy in adjacent to the Black sea areas.
- Yevgen Gazyetov - data processing and management and GIS
- Sergey Snigirev – Ichthyology. Fish biodiversity data.

Role in the project:

ONU is involved in WP3 "Scenarios of Change" as participant for task 3.3 "Land cover: change models and scenarios of expected changes until 2050" for region of southern part of Ukraine in framework of Land cover change module creation (historical and current model inputs and data model).

ONU will collect historical and current data for hydrological catchment models especially for SWAT in framework of WP4 "Catchment Hydrological Models" (tasks 4.1) for Dniester River

catchment. ONU will be involve in WP5 "Impacts on selected Societal Benefits Areas" fulfilment (tasks 5.1, 5.2) for Biodiversity and Ecosystems state assesments especially for area of the Black Sea around island Zmeiny near Danube Delta and Dnister Delta wetlands. In framework of task 5.3 "Agriculture" on base modelling phase ONU will implement part of sub-regional case studies for Ukraine and Romania together with IGAR a country level analysis of the agriculture sector which will be carried out with focus on agri-environmental issues in Romania and Ukraine with goals to identify potential hotspots, current policy and physical drivers of change, and creation a country-level EPIC GIS.

ONU will take part in WP6 for the Black Sea Catchment Observation System development using GEO BSC analysis and status of the national GEO related activities in the Black Sea region conducted by different national organizations trough preparation of proposals for Strategy for Earth Observation in the Black Sea region and for an Action plan for resources mobilization and enhancement of GEO activities in the Black Sea region.