



International Cooperation Activity of R Moldova on Environment and Climate Change



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Academy of Sciences of Moldova**



Minsk, 08 September 2009

Interlink | Kick off meeting |



ACADEMIA
DE STIINTE
A MOLDOVEI



Moldova National Contact Point for the EU 7-th Framework Programme for RTD



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The Moldova National Information Point (NIP) for the European
Community's Framework Programme for RTD
was established at the *Academy of Sciences of Moldova* in 2003 with the
support of INTAS & EC

Till 2007 Academician Gheorghe DUCA
is the Coordinator of NCP on FP7



Moldova is a small country SEE, size – 33,7 thousands sq. km, 4,1 millions inhabitants. Two main water basins - transboundary rivers Dniester and Prut (Danube). For drinking water supply are used 4 water intakes at r. Dniester, 7 at r. Prut, supplying 30% of general population. According to the data from the Ministry of Health, 3315 artesian wells, 116.000 shallow wells and 804 DWS systems are in use.

Up to 45% of the general population without access to safe water sources, rural population – 75%. 55% of the population has connection to DWS systems: 85% urban, 25% rural. Access to improved sanitation systems – 42% - 67 in urban and 10% in rural locations

Water management authorities – National Water Agency and 2 basin agencies under construction.

- ✓ ***Ministry of Ecology & Natural Resources***
- ✓ ***Institute of Ecology & Geography of ASM***
- ✓ ***Institute of Geology & Seismology of ASM***
- ✓ ***REC Moldova – Regional Environmental Centre***
 - ✓ The Centre's mission is to assist in solving the environmental problems in Moldova and neighbouring countries by promoting cooperation among non-governmental organisations, governments, businesses and other environmental stakeholders, and by promoting the free exchange of information and public participation in environmental decision-making
- ✓ ***Global Water Partnership Moldova*** – the main objectives are to provide the natural platform for the water policy dialogue, to facilitate knowledge exchange and implementation of action programmes by water stakeholders

INTERNATIONAL WORKSHOP ON SEISMIC HAZARD AND SEISMIC RISK REDUCTION IN COUNTRIES INFLUENCED BY VRANCEA EARTHQUAKES

May 20, 2008

Chisinau, Moldova

Organized in the framework of the NATO research project SfP-980468

<http://igg.asm.md/sfp/>



SUMMARY ENVIRONMENT STATE IN THE REPUBLIC OF MOLDOVA

1. BACKGROUND

- [1.1 Brief country profile](#)
- [1.2 Geography](#)
- [1.3 History and Demographic Characteristics](#)
- [1.4 Economy](#)



2. CLIMATE CHANGE

- [2.1 Some indication on climate change](#)
- [2.2 Contribution on global warming](#)
- [2.3 Energy supply and use](#)
- [2.4 Short conclusion](#)



3. STRATOSPHERIC OZONE DEPLETION



4. ACIDIFICATION

- [4.1 Emission of acidifying substance](#)
- [4.2 Instruments used in controlling emissions](#)
- [4.3 Short Conclusions and Recommendations](#)



5. CHEMICALS

- [5.1 Introduction](#)
- [5.2 Heavy metals](#)
- [5.3 Persistent organic pollutants](#)



6. WASTE

- [6.1 Introduction](#)
- [6.2 Waste generation](#)
- [6.3 Waste recycling and reuse](#)
- [6.4 Policy objectives and management instruments](#)
- [6.5 Conclusions and recommendations](#)



7. NATURE, FORESTS AND BIODIVERSITY



- [7.1 Introduction](#)
- [7.2 Current state of habitats](#)
- [7.3 Driving forces for nature and biodiversity changes](#)
- [7.4 Nature protection policies and management](#)
- [7.5 Conclusions and recommendations](#)

8. WATER



- [8.1 Current water resources](#)
- [8.2 Water supply and use](#)
- [8.3 Water quality](#)
- [8.4 Environmental management of water issues](#)
- [8.5 Conclusions and recommendations](#)

9. SOIL DEGRADATION



- [9.1 Soil resources](#)
- [9.2 Soil quality](#)
- [9.3 Soil erosion](#)
- [9.4 Instruments used in management](#)
- [9.5 Conclusions and recommendations](#)

10. URBAN ENVIRONMENT



- [10.1 Introduction](#)
- [10.2 Air pollution](#)
- [10.3 Water quality and water pollution](#)
- [10.4 Municipal solid waste](#)
- [10.5 Short Conclusions](#)

11. MAJOR ACCIDENTS: Technological and Natural Hazards



- [11.1 Short comments](#)

12. POLICIES AND LEGISLATION



- [12.1 Short comments on environmental safety management](#)
- [12.2 Conclusions](#)

- ✓ Critical ecological situation in Ukraine, Republic of Moldova have been mentioned in OSCE report of 2009: 2,5 tons of arms and wastes from military activities – in Ukraine; 20000 tons – in Moldova;
- ✓ A eventual explosion will provoke a ecological and human hazard.

- ✓ *Related projects in the environment & climate change:*
- ✓ *(Coordinator – Academician Gheorghe DUCA)*

1. *The National Programme: “Catalytic redox processes in pure technologies and environment”, which includes 4 projects:*
 - *Intensification of physical-chemical processes & and biochemical treatment of natural and residual waters;*
 - *Study & elaboration of methods for diminution of organic substances and acids from the natural and residual waters;*
 - *Study of conditions for redox creation in the Dnester river;*
 - *Elaboration of perspective technologies for noxes diminution in the atmosphere;*

Looking back to 37th IAD conference in Chishinau

THE FIRST IAD CONFERENCE IN MOLDOVA 29.10. - 2.11. 2008

Posted by [2008-12-18 09:31:48]

For the first time a conference of the International Association for Danube Research took place in the Republic of Moldova. The 37th conference "The Danube River Basin in a changing world" was held between 29 October and 2 November 2008 in Chishinau, capital of the Republic of Moldova. Our host was the ULIM, Free University of Moldova. In a close cooperation of the national representative of IAD in Moldova, Dumitru Drumea, the general secretariat and the two national IAD committees in Serbia and Romania shared the preparation works. It was a pleasure to see initiative students presenting ... [\[more...\]](#)

The International Conference "Transboundary Dniester River Basin Management and the EU Water Framework Directive" held in Chisinau, Moldova, on October 2-3, 2008

**Organized by Academy of Sciences of Moldova
Chairman – Academician Gheorghe DUCA**

3. NATO project SfP- 980468 (2005-2008).

NATO International Workshop “Seismic Hazard Harmonization and Risk Reduction: Vrancea Zone”. Institute of Geology and Seismology, ASM, 20 May 2008, Chisinau, Moldova (Participants -Romania, Bulgaria, Turkey and Republic of Moldova).

Topic: Common Elaboration of Vrancea seismic hazards Map; Example: purchased modern equipment permitted complete monitoring of seismic situation in this zone; station ETNA - broad band (2007) , connected recently to regional network of the Institute from Măgurele, Bucharest, with access also to European network stations and to digital connections on-line of these.

Consultations in Framework of INT-ER-LINK Project

“A comparative Model for Earth Observation Operating Capacity Development in Black Sea Basin”; FP7-Env 2008-1, activity 6.4; Subactivity no: 6.4.1.4.1, Coordinator: The Scientific and Technical Research Council of Turkey (TUBITAK)

**Participants from R. Moldova: Botanical Garden, ASM
Institute of Geography, ASM**

“UV radiation at European level and its impact on human health: a European UV Radiation Atlas”, Call selected: FP7-ENV-2008-CP-FP; Topics addressed: ENV.2008.1.2.1.5. (Alexandr Aculinin, Institute of Applied Physics, ASM)

“PROMETHEAS Network for Energy and Climate Policy” (Institute of Power Engineering, ASM)

“Risk Assessment of Geoenvironmental Contamination and Technologies for Remediation of Polluted Sites”, (Sub-activity 6.3.1. ENV 2007 3.1.2.2), Institute of Geology and Seismology, ASM, Dr. Oleg Bogdevich

**FP6 Projects with participation of R. Moldova
(Environment & Climate Change)**

RIMAWA	Reducing Environmental Risk through Strengthening of Management of Hazardous Waste from Industrial, Agriculture and Military Activities in Wider Europe	FP6-2002- INCO- COMULTILAT RTD/SSA-5	European Associated Centre on Flood Problems	
PROMIT HEAS-2	EU-BSEC Energy and Climate Policy Network	FP6-2002- INCO- COMULTILAT RTD/SSA-5	Institute of Power Engineering, ASM	
INT-ER- LINK	Promoting International Cooperation for Environmental Research through Dissemination and Networking Activities	FP6-2005- GLOBAL- 4/SSA	ASM	
CECILIA	Assesment of Climate Change Impacts in Central and Eastern Europe	FP6 Priority thematic areas: 1.1.6.3.1.3.2	State University of Medicine and Pharmacy	

**FP7 Projects with participation of R.Moldova
(Environment & Climate Change)**

<p>BS-ERA.NET</p>	<p>Networking on Science and Technology in the Black Sea Region</p>	<p>INCO-CSA-CA</p>	<p>ASM</p>
<p>HYDROCELL</p>	<p>Integrated Advanced Distributed System for Hydro-Meteorological Monitoring and Forecasting using Low-Cost High Performance X-band Mini-radar and Cellular Network Infrastructure</p>	<p>BSG-SME</p>	<p>Moldova-Italy Chamber of Commerce; State Hydro-Meteorological Service of Moldova – ASM</p>
<p>GEOBLACK SEA (Reserve List)</p>	<p>Development of Research Activities for Capacity Building</p>	<p>RTD/04</p>	<p>Hydro-Meteorological Station</p>

Consultations

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- ✓ Consultations have been offered to researchers of MSU and others. Proposal of Dr Tatiana Potlog, physicist MSU, presented to IRSES call was eligible. Workshop on FP7 participation and proposal preparation” including information on FP7 People Subprogram “Initial Training Networks” was organized. The copies of this call and information translated in national language has been disseminated.

Seminars & Info Days

- **Info-Day: The 7th Framework Programme and opportunities for participation of Eastern European countries**
Dr. Maria IOVU, FP7 NCP in Moldova
Thursday, 4 October 2007
Organized at the Academy of Sciences of Moldova
Section for Biology, Chemistry and Ecology Sciences
- **FP7-PEOPLE-IRSES-2008, Marie Curie 'International Research Staff Exchange Scheme, Work Programme and Guide for application have been placed at December 12, 2007 on www.asm.md**
- **Two seminars have been organized at the Institute of Zoology of the ASM (Number of participants: 30) and at the Institute of Viticulture and Wine-Production (Number of participants: 20).**



Atmospheric Research Group Institute of Applied Physics, ASM



The Atmospheric Research Group was established in 2003. Due to active support of the [Institute of Applied Physics](#) of the [Academy of Sciences of Moldova](#) and to the financial support from the U.S. Civilian Research & Development Foundation ([CRDF](#)) and Moldovan Research and Development Association ([MRDA](#)) through the grant [#ME2-3033](#) (2003-2005), the ground based solar radiation monitoring [station](#) was created. The ground station is composed of multifunctional radiometric complex for monitoring of solar and atmospheric radiation in a wide spectral range from ultra-violet (UV) up to infra-red (IR) margin of a spectrum.

The complex consists of 9 sensors of radiation for continuous measurements of global, diffuse and direct solar radiation, automatic sun-tracking unit ZAP BD ([Kipp&Zonen, the Netherland](#)) and datalogger CR10X-4M ([Campbell Scientific Co. ,UK](#)) for signal processing and data storing.

Additionally, the ground station incorporates an automatic weather station MiniMet ([Skye Instruments Ltd., UK](#)), portable hand-held ozonometer MICROTOPS II ([Solar Light Co., USA](#)), and sunphotometer CIMEL CE-318 ([Cimel Electronique, France](#)). Sunphotometer was given by our partners from the NASA Goddard Space Flight Center ([GSFC](#)) within the framework of the International program the Aerosol Robotic Network ([AERONET](#)) related to the monitoring of the atmospheric aerosol optical properties. AERONET program operates worldwide under the supervision of NASA/GSFC.

**Project REC-Moldova “Towards the Implementation of the EU Water Initiative and Integrated Water Resources Management in Moldova”
(July 2007 – 2009).**



REC-Moldova works in partnership with existing Regional Environmental Centres in solving transboundary and regional environmental problems.

REC- Moldova is part of a network of similar centres:

- **REC for Central & Eastern Europe**
- **REC From Rissia**
- **REC from Caucasus**
- **REC from Central Asia**



Thank you for kind attention !