



**Romanian National Committee  
for IHP UNESCO**

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## **NATIONAL REPORT ON IHP RELATED ACTIVITIES**

### **1. ACTIVITIES UNDERTAKEN IN THE PERIOD SEPTEMBER 2004 - JUNE 2006**

#### **1.1. Meetings of the IHP National Committee**

##### 1.1.1. Decisions regarding the structure of the IHP National Committee

During the annual meeting of the IHP - UNESCO Romanian National Committee, which took place on 18.11.2005, the following board was elected:

1. PRESIDENT – Lucia Ana VARGA, Secretary of State, Ministry of Environment and Water Management
2. VICEPRESIDENT – Dr. Eng. Petru SERBAN, National Administration “Romanian Water”
3. VICEPRESIDENT – Prof. Dr. Eng. Radu DROBOT, Civil Engineering University - Bucharest
4. VICEPRESIDENT – Prof. Dr. Eng. Gheorghe CRETU, Politechnic University - Timisoara
5. SECRETARY – Dr. Petre STANCIU, National Institute of Hydrology and Water Management

##### 1.1.2. Status of IHP-VI activities

- Implementation of the Orders and Decisions regarding the Water Management passed by the IHP Intergovernmental Council
- Participation in/realization of the themes and projects included in IHP-UNESCO or in regional programmes.
- Providing the data and information regarding the activities of Romanian National Committee for the International Hydrological Program of UNESCO
- Partnership with UNESCO National Commission for Romania and participation to specific programmes of this organization.
- Organization of workshops, scientific sessions etc.

##### 1.1.3. Decisions regarding contribution to/participation in IHP VII

The Plan project IHP-VII, received from the IHP-UNESCO Secretariat was distributed to the RNC-IHP members, in order to formulate observations and

suggestions concerning the proposed structure and to transmit them to the Secretariat of the International Hydrological Program – Natural Sciences Division.

## **1.2. Activities at national level in the framework of the IHP**

### 1.2.1. National/local scientific and technical meetings

- Participation in the JRC Information Day and S&T Workshops organized by the European Commission's Joint Research Center and the Romanian Ministry of Education and Research. The objective was to make presentations of the 7<sup>th</sup> Framework Programme and COST, and also the signature of the Memorandum of Understanding regarding the application of the European Flood Alert System – EFAS in Romania, between Joint Research Center and the National Institute of Hydrology and Water Management.

### 1.2.2. Participation in IHP Steering Committees/Working Groups

- Participation in the meeting regarding the initiation of Phase II of a Pilot Project in the Centre and East of Europe “Forward Integration of Flood Warning in Areas Prone to Flash Floods”.

### 1.2.3. Research/applied projects supported or sponsored

### 1.2.4. Collaboration with other national and international organizations and/or programmes

- Participation in the International Conference Regarding Sustainable Development and Conservation of Biodiversity in the Danube Delta, Odessa, Ukraine 27 February 2006. It was collaboration between the Ukrainian, Romanian and Moldavian Governments, under the auspices of UNESCO Paris, UNESCO International Commissions from Ukraine, Romania and Moldova, ICPDR and WWF.

### 1.2.5. Other initiatives

## **1.3. Educational and training courses**

### 1.3.1. Contribution to IHP courses

There are not yet contributions to IHP courses.

### 1.3.2. Organization of specific courses

- Participation in the educational programme of the Civil Engineering University of Bucharest.

### 1.3.3. Participation in IHP courses:

There has been no participation in IHP courses

#### **1.4. Cooperation with the UNESCO – IHE Institute for Water Education and/or international/regional water centers under the auspices of UNESCO**

#### **1.5. Publications**

- Within the Regional Hydrological Cooperation of the Danube Countries in the Framework of the International hydrological Programme of UNESCO the following works have been republished:
  - Inventory of the Main Hydraulic Structures in the Danube Basin
  - Regional Analyses of Annual Peak Discharges in the Danube Catchment
- Collaboration in editing “Hydrotechnica Magazine”

#### **1.6. Participation in international scientific meetings**

##### 1.6.1. Meetings hosted by the country:

- The NIHWM International Annual Scientific Communication Session, Bucharest, October 2004:
  - Hydrological modeling and forecast models
  - The regional hydrological effects of climatic changes and variability
  - Flows and erosion prediction in ungauged basins (PUB): integrated methods and techniques
  - Water resources management
  - Risk analyses for resources management in extreme situation (flood, drought)
  - Hydrological and hydrogeological regimes
  - Complex and eco-hydrological aquatic systems
  - Modern methods and techniques of hydrometric measurement
- The NIHWM National Annual Scientific Communication Session, Bucharest, October 2005

##### 1.6.2. Participation in meetings abroad

- **Participation in the Session of IHP-NC representatives and in the 22nd Conference of the Danube Countries; Brno - Czech Republic, 27 August – 04 September 2004.**

Within the Conference there have been presented the following scientific papers:

- The 2003 drought on the Danube River.
- The role of the lithological formations from the Danube Plain on the groundwater level during the large floods.

- Relationships among the hydrological and geomorphologic parameters of a hydrographic basin, based on a case study in Romania.
  - The application of social efficiency in designing an automatic warning hydrological network.
  - Considerations regarding the overexploitation of groundwater resources.
  - CHELIM.
  - Methods of the rivers classification regarding the influence of the water storages and dikes on water flow and water balance.
  - Relations of maximum flow forecast in correlation with relational factors.
- **Participation in 19<sup>th</sup> Working Meeting of the experts and representatives of the Regional Hydrological Cooperation of the Danube Countries in the Framework of the International Hydrological Programme of UNESCO - Passau, Germany, June 2<sup>nd</sup>, 2005**

The Romanian delegation has presented the answers concerning the short Questionnaire to Project no. 12 SEDAN – “Modeling of erosion, transport and sedimentation processes in the Danube River and its major tributaries”. Within the above mentioned event it has been established to be organized in October 2005, in Bucharest – Romania the first Steering Committee of SEDAN in order to integrate the Sedan project into International Sedimentation Initiative (ISI).

Within the above mentioned meeting, held in Passau, the following scientific papers have been analyzed too:

- Long-term fluctuations of precipitation in the Danube Basin.
  - Flood coincidence of the Danube and its major tributaries.
  - Flow regime of River Danube and its Catchment (An update of Chapter II of the Danube Monograph).
  - Basin-wide water balance in the Danube River Basin (An update of Chapter III of the Danube Monograph).
  - Hydrological water balance related to the Danube Basin.
  - The common hydrological meta-database of the countries sharing the Danube Catchment.
  - Characterization of the runoff regime and its stability in the Danube Catchment.
- **Participation in the Workshop „Towards the Integrated Management of the Danube Sediment-Soil-Water-System as Support to the Implementation of the EU Water Framework Directive in the Danube River Basin”, Budapest, Hungary, 23 - 26.03.2006**

The Workshop, initiated and financially supported by UNESCO/ROSTE and involving experts from ICPDR, SEDAN, Aqua Terra and SedNet, has the purpose to continue the efforts to generate from the countries sharing the Danube Catchment further valuable contributions to the International Sediment Initiative (ISI) of UNESCO,

thus simultaneously supporting the implementation of the EU Water Framework Directive (WFD) in the Danube Catchment.

- **Participation in the 33rd UNESCO General Conference, 3 – 21 October 2005, Paris, France**
- **Participation in the 16<sup>th</sup> Session of the Intergovernmental Council IHP – UNESCO and the 7<sup>th</sup> Kovacs Colloquium; Paris - France, 17 – 18 September 2004**

The Romanian delegation has attended:

- The Report of the Council activity during 2002-2004.
- The election of a new President and 4 new Vice-Presidents of the Council for 2004 – 2006.
- The Report of IHP-UNESCO Secretary regarding the Work Program 32 C/5 and the Budget for 2004 – 2005 and the preparation of the new Work Program 33 C/5 and the budget for 2005 – 2006.
- The report regarding the implementation of the adopted recommendations and resolutions, including the UNESCO Educational Centers in the field of water management.
- Reports regarding the foreign evaluation of the IHP Project – Phase V, the implementation of the Phase VI and the preparation activities of the new IHP – Phase VII Project.
- The embracing of the measures regarding the strengthening and intensification of the IHP National Committees activities.
- The analysis of new IHP projects:
  - The International Floods Initiative.
  - The International Sedimentation Initiative.

The Romanian delegation has also participated in:

- The workshops regarding the SEDAN Project;
- The workshops regarding CHARM Project and PWA Project;
- The workshops of the Financial Committee of the IHP Intergovernmental Council;
- The Kovacs Colloquium.

- **Participation in two scientific actions; Turin - Italy, 13- 17 October 2004:**
  - **The 10<sup>th</sup> ERB Conference (European Network of Experimental and Representative Basins) - Euromediterranean Conference.**
  - **ERB Steering Committee Meeting,**

Within the above mentioned events have been presented two scientific papers:

- Forecast model of flood waves in very small basins.

- Characteristics of minimum flow and depletion phenomenon in small basins in Romania; Forecast relationships of these phenomena.
- **Participation in the “Hydrology and Limnology – Another Boundary in the Danube River Basin” Workshop; Vienna - Austria, 14 – 16 October 2004 for:**
  - The presentation of the development of the SEDAN Project;
  - The discussion of the SEDAN Project with Mr. Philip Weller, Executive Secretary of ICPDR and the analysis of the support possibilities;
  - The discussion with Mr. Jurg Bloesch, President of the IAD, in view of the collaboration regarding the SEDAN Project.
- **Thessaloniki – Greece Workshop; 18 – 23 October 2004, where the delegates have attended:**
  - The report on the experience that UNESCO, UNEP UNECE gained in the field of integrated management of transboundary rivers and lakes in the area.
  - The setting up of UNESCO/INWEB databases and the inventorying of surface waters in the South-Eastern and Eastern Europe.
  - The identification of key issues for sustainable transboundary water management from South-Eastern and Eastern Europe and the identification of transboundary areas where conflicts regarding water may appear.
- **Venice - Italy, 25 – 26 November 2004, International Conference SedNet “The Future of the Sedimentation Management in Europe” in order to present:**
  - The Romania’s preoccupation for the monitoring of sedimentation processes;
  - The paper: “The Perspectives of Sediment Monitoring Development in Romania”

## **1.7. Other activities at regional level**

### 1.7.1. Institutional relations/co-operation

There are not put in force. There will be developed bilateral co-operation with Bulgaria, Ukraine, Moldova, Hungary.

### 1.7.2. Completed and ongoing scientific projects

## **2. FUTURE ACTIVITIES**

### **2.1. Activities planned until December 2007**

- Meetings to analyze the activities of the IHP Romanian National Committee.

### **2.2. Activities foreseen for 2008-2009**

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### **2.3. Activities envisaged in the long term**

- Proposals for the VIIth faze of the PHI Programme
  - Theme 1: Global Change, Watershed and Aquifers:
    - Water rivers flow evolutions caused by extreme variations of precipitation, water frost or karsts.
    - Methodology of design flood hydrograph calculus under natural and human activities modified conditions.
    - Regional modeling of the maximum discharge, with different durations and mean return periods.
    - Droughts in a global climate change context.
    - Impact of variability and change climate upon monthly water resources using a balance hydrological model.
    - Contribution of the snow cover to runoff in the variability and change climate context.
  - Theme 2: Governance and Socio-economics:
    - Efficient water using and pricing. Management of demands. Water – production function.
  - Theme 3: Water and environmental management:
    - Ecological rehabilitation and reconstruction of water bodies.
    - Food monitoring and forecasting in urban area.

Water resources to assure the water demands for big cities and increasing the water quality down stream.