

FINAL REFLECTIONS **(Symposium Conclusions)**

Nowadays, the extreme hydrological phenomena, natural or accidental like floods, droughts, pollution, are frequent worldwide.

They represent in fact the topic of the International Symposium **“Preventing and Fighting Hydrological Disasters”** organized by the “Politehnica” University of Timisoara, Faculty of Hydrotechnics, together with the National Administration of the Romanian Water, Banat Water Branch and the Romanian National Committee for the International Hydrologic Program-UNESCO, in the period 29.06 – 01.07.2006, at Timisoara. The Symposium intended to be a continuation of the conference thematic, organized at Timisoara in 2002, and to express in the same time the actual requirements in the domain.

The Symposium has taken place under the auspices of IAHS (the International Association of Hydrological Sciences) – Wallingford, UK; EWRA (World Association of Water Resources) – Athens, Greece, and WASWC (World Association of Soil and Water Conservation) – Bangkok, Thailand.

The Symposium was included in the 2006 calendar of these organizations, being added to the web portal “PapersINVITED” also (which presents a list with the events organizers, periodical publications destined to the researchers from more than 60 countries). In the same time is integrated into the “International Initiative for Floods”, program coordinated by UNESCO.

Beside these ones, were made under different form, presentations and promotion materials by IAHS, WASWC, EWRA.

Interest for the Symposium was shown by some international non-governmental organizations, magazines in the domain and private persons (some of them by dissemination of ideas, some by participation). All the papers were published in the Symposium Proceedings (the abstracts in the volume and the extended papers on CD), part of those were presented and discussed during the event.

Further, a number of selected papers will be published into the international prestigious magazine EWRA (Water Resources Management).

The objectives of the Symposium can be synthesized in:

- presenting some theoretical results, accomplishments and experiments in research , education, and execution – exploitation in the domain;
- establishing exchanges of ideas, opinions concerning preventing and diminishing the destructive effects of the hydrological extremes;
- settling the directives for the future actions.

We were honored by accepting to form the International Scientific Committee or attended actively, remarkable specialists in the domain, especially from the Europe, and we were also glad to be hosts of remarkable specialists from our country, colleagues from universities and water authorities.

The Symposium has included as topics:

- Natural and accidental floods
- Hydrological droughts
- The pollution of the water resources

- Policies and strategies

In the ones of more than 70 papers presented with more than 100 authors from Romania, France, Germany, Austria, Portugal, Holland, Serbia, Switzerland, Australia, Turkey, Iraq, SUA, England, Canada, Uzbekistan, have been approached, in syntheses, the following issues:

1. Natural and Accidental Floods

Flood risk; flood wave forecast, modeling, computational models and scenarios for propagation; management of floods included to the integrated management of the catchment area (prevention – protection – diminishing); monitoring and exploitation functioning of the high water systems works; GIS utilization in floods hazard (risk maps); impact / effects / damages; case studies from Romania, France, Portugal, Austria, Thailand and Indonesia.

In this context, can be underlined the opinions regarding the *forecast* management for the urban floods, prevention of the hydrological disasters through the restoration of the connection between the stream and flood plain, preparedness and prevention in the flood control, floods forecast systems; a correct *modeling* of the floods in natural environments, physical model of the stream, to validate the flood simulation numerical models in case of dam failure, techniques for floods analysis, scenarios for the flood wave propagation and the flood management in Romania in 2005.

In this topic were included almost half of the total papers from the Symposium.

2. Hydrological Droughts

There are analyzed some hydrological droughts and their management in case of concrete situations from Romania, India, Uzbekistan.

The topic is represented by a small number of papers which approach insignificantly the essential problems of the hydrological drought.

3. Pollution of Water Resources

Are treated especially the surface waters in which concerns the prevention and diminishing the accidental pollution effect; water quality modeling including through ecohydrological models; advanced technologies for water purification, possible sources of pollution including the pollution due to soil erosion, the impact on the environment including the anthropic processes in reservoirs.

Are detailed the pollutants distribution in aquifers, pollution of the aquifers with pesticides, and of the surface waters with phosphorus and nitrogen compounds; the plan for the prevention and mitigation of accidental pollutions. During the Symposium were presented several case studies concerning the pollution on Someș, Tisa, Bistra, Barzava and Bega streams.

4. Policies and Strategies

Great part of the papers included in this topic are from the domain of the maximum extreme hydrologic events, floods, presenting defenses strategies against floods, including the Danube Delta, the management of the catchment area in humid areas and cross border areas, economical problems; strategies to predict the floods in the urban zones, the WATMAN project, and the analysis of several case studies from Romania, France, India, legislative problems and implementation of these.

It pays attention the study of floods included to the integrated management of the catchment area (the English model RASP), the management of floods for what is defined as safety chain (the Dutch policy), the management of the resources in case of ecological disaster; using GIS in water policy, decisional support systems, risk estimation of not reaching the environment objectives until 2015 for the surface waters.

Are presented some case studies in which concerns the proportional – disproportional cost assessment (Artois catchment area – France), the defense strategy against floods (Arges catchment area) or the management plan (Banat area), humid area protection (natural reservation Sat Chinez - Timis).

The Symposium given the opportunity to organize an exhibition of posters, having the same topics, realized by the students of the faculty in the frame of a contest of *Posters, essays and slogans*.

The Symposium has taken place at high scientific and theoretical level, offering concrete solutions, implemented in the management activities for the crisis situations. It is a unanimous opinion of the participants, prestigious names in the approached domains.

In the name of organizing committee, I would like to express my satisfaction and thanks for the contribution of each ones at the debates and the success of the Symposium, and also for the ulterior messages addressed by the participants.

Chairman
Prof. Cretu Gheorghe

Web sites:

www.ewra.net

www.waterinfo.gr

www.waswc.org

www.cig.ensmp.fr/~iahs/

www.papersinvited.com/displayOrgEvent.asp?eId=224523974906665&code=391320178095160

www.utt.ro/pfhd/pfhd2