

UNITWIN/UNESCO Chairs Programme Progress report

Period of activity: June 2003 - December 2004

Title of the UNESCO Chair and Network: International Network of Water Environment Centres for the Balkans (INWEB)

Institution/Country: Aristotle University of Thessaloniki/Greece

Report established by: Jacques Ganoulis

Function / Title: Chair holder and Coordinator / Professor

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Summary

(Not exceeding 300 words, outcomes/results/impact)

The principal objective of INWEB and its related cooperation programmes is to promote and ensure in South Eastern Europe (the Balkans) a “**Sustainable Management of Water and Conflict Resolution**”. INWEB is an active network, composed by main partners from all the 10 Balkan countries. The main results obtained in 2003/2004 are as follows:

➤ Linking Education, Research and Professional Development:

- Organisation of a special theme E, XXX International Congress of IAHR (Int. Association of Hydraulic Engineering and Research), Thessaloniki, 2003; publishing a special volume.
- TECHWARE Presidency: TECHWARE (Technology for Water Resources) is an international non profit-making organisation within the framework of the programmes of the EU regarding transfer of knowledge and technology on Environment/Water. Prof. Jacques Ganoulis, Coordinator of UNESCO Chair/INWEB, was elected in 2003 President of TECHWARE.

➤ Promoting Research, Training and International Cooperation:

- Active participation of INWEB in 2 EU research and cooperation projects (RIVERTWIN – A regional Model for Integrated Water Management in Twinned River Basins and CABRI- Cooperation Along a Big River: the case of Volga River) and in UNESCO / HELP (Hydrology for Environment, Life and Policy) programme.
- Training activities in the Balkans: Albania/UNESCO, PCCP-Balkans and VICAIRE projects.
- Developing inventories of International Waters in the Balkans (UNESCO/ISARM and UNESCO/ROSTE).

➤ Dissemination of Knowledge, Results and Achievements:

- EU dissemination network ETNET21
- Developing and distributing data bases on International Rivers and Aquifers in the Balkans.

I. Address and Contact

	Address of the Host Institution	Address of the Chair holder and coordinator
Name		Jacques GANOULIS
Function/Title		Coordinator / Professor
University/Institution	Aristotle University of Thessaloniki (AUTH)	Aristotle University of Thessaloniki
Faculty/Department/Centre		Department of Civil Engineering, Division of Hydraulics and Environmental Engineering
P.O.Box		
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City	Thessaloniki	Thessaloniki
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E-mail		iganouli@civil.auth.gr
Website of UNESCO Chair and UNITWIN Network	www.inweb.gr	
Website of Host Institution	www.auth.gr	

II. Available resources

For each type of resource placed at the disposal of the Chair/Network, please specify its source (cf. Annex 1)

1. Human resources *Provided by Host Institution AUTH*

- Status of the Chair in the organizational structure of the Institution (number of posts contributing to the Chair)
 - UNESCO Chair & Network hosted by AUTH
 - 1 full Prof., 1 Secretary, 1 Technical Assistant
- Number of academic staff (part time), full professors, researchers, lecturers
 - 2 full Prof., 3 ass. Prof., 3 researchers
- Number of visiting staff
 - Variable (one or two)
- If there are other staff or groups contributing to the Chair or Network, please indicate their number and status (postgraduate students, advisors, consultants, experts, NGOs, etc)
 - All 10 active members of INWEB
 - 3 graduate students, 3 experts, 1 NGO
- Number of administrative staff
 - 2 part time

2. Other resources

- Financial contributions (*indicate amount, source and purpose*)
 - Amount is variable, depending on specific projects.
 - Provided by various institutions financing specific projects.
 - Projects have specific objectives.
- Material resources (*indicate their nature and use*)

Provided by AUTH:

- Telephone, Fax, Stationery, Heating, Lighting, Electricity.
- Internet connection, office equipment.
- All used for running the UNESCO Chair and Network INWEB.

- Space placed at the disposal of the Chair and Network

Provided by AUTH:

- Office space (approx 20m²).
- Meeting room (up to 150 persons).
- Reception area (approx 50 m²)
- All shared with other functions of the Aristotle University of Thessaloniki.

III. Activities

(Please, provide short information for each activity)

1. Academic activities

Education *(leading to certification)*

- Title of the course: Environmental Protection and Sustainable Development
- Duration: 1 Semester
- Target groups: Graduate students, 20 Male, 25 Female (variable)
- Geographical coverage for partners and participants : National
(the course is run in cooperation with the Division of Hydraulics and Environmental Protection, Civil Engineering Department, AUTH).

Training *(short term) 2003-2004*

- Title: Water Management and Flood Protection
 - Expected results: Enhanced knowledge of flood protection strategies
 - Duration: 4 months
 - Target groups Undergraduate Students
 - Geographical coverage for partners and participants : Western Europe
-
- Title: HydroWeb and DCMS (Document Management System)
 - Expected results: Enhanced knowledge of long-distance learning opportunities in field of integrated water resources management in the Balkans. Enhanced knowledge of document management for internet access.
 - Duration: One day
 - Target groups:
 - Academics (6 male, 1 female)
 - Postgraduate students (2 male, 1 female)
 - Public administrators (1 female)
 - Private administrators (1 female)
 - Geographical coverage:
 - Western Europe & N. America: Germany (1);
 - Eastern and Central Europe: Bulgaria (1); Greece (7); Romania (1); Slovenia (1); Turkey (1):

Research

- Title: RIVERTWIN - A regional Model for Integrated Water Management in Twinned River Basins
- Duration: 2004-2006 (3 years)
- Target groups: Public Institutions and Administration, all citizens
- Geographical coverage for partners and participants: Europe, Africa, and Asia
- Intended use of results:
 - Transfer of knowledge and technology to developing countries
 - Results may be used as tools for sustainable water resources management at river catchment scale.
 - Implementation of EU Water Framework Directive

- Title: CABRI - Cooperation Along a Big River: the case of Volga River (Russia)
- Duration: 2004-2006 (2 years)
- Target groups: Public Institutions and Administration, all citizens
- Geographical coverage for partners and participants: Europe, and Asia
- Intended use of results:

CABRI-Volga is an international coordination action to facilitate cooperation and to coordinate research in environmental risk management in large river basins in the EU, Russia & the New Independent States (NIS).

Results will contribute to enhance existing initiatives on the development of coordination mechanisms along the basin, such as:

- the establishment of the Volga Basin Council
- the establishment of a State Fund for the Protection of Small Rivers in the Volga Basin
- the establishment of a national committee for the International Human Dimension Programme on Global Environmental Change

- Title: Mesta/Nestos River HELP Programme
- Duration: 2004-
- Target groups: Public Institutions and Administration, all citizens
- Geographical coverage for partners and participants: Europe, Africa, and Asia
- Intended use of results:
 - Developing tools for Integrated Water Resources Management
 - Application to the transboundary Mesta/Nestos River Catchment (Greece-Bulgaria).
 - Implementation of EU Water Framework Directive

2. Conferences / Meetings

- Title for each conference, meeting organized by the Chair/Network
- Dates and place
- Participants (*number and geographical coverage*)

- 1.) XXX IAHR Congress, Theme E Water Engineering Education
24th-29th August 2003, Thessaloniki, Greece
Participants Total 800
Europe, Asia, Africa, North and Latin America
- 2.) INWEB Board of Management meeting
8th November 2003, Delft, The Netherlands
Participants Total: 7
Bosnia & Herzegovina (1); Bulgaria (1); Croatia (1); Greece (3); Slovenia (1);
- 3.) INWEB General Assembly
8th January 2004, Thessaloniki, Greece
Participants Total: 10
Greece (10)
- 4.) INWEB Board of Management meeting
19th February 2004, Thessaloniki, Greece
Participants Total: 8
Croatia (1); Greece (6); Slovenia (1);
- 5.) South East Europe Regional Workshop
ETNET21 Environment-Water Dissemination Project
18th-19th June, 2004, Thessaloniki, Greece
Participants Total: 12
Bulgaria (1); Germany (1); Greece (7); Romania (1); Slovenia (1); Turkey (1):
- 6.) Development of an Inventory of Internationally Shared Surface Waters In South-Eastern Europe
18th-20th October 2004, Thessaloniki, Greece
Participants Total: 33
Albania (1); Bosnia & Herzegovina (2); Bulgaria (2); Croatia (2); FYR Macedonia (2); Greece (9); Romania (2); Serbia & Montenegro (2); Slovenia (1); Turkey (2); from international organisations (8).
- 7.) The Internationally Shared Aquifer Resources Management - Mediterranean (ISARM-MED) Consultative Meeting: Key Issues for Sustainable Management of Transboundary Aquifers in the Mediterranean and In South Eastern Europe
21st-23rd October 2004, Thessaloniki, Greece
Participants Total: 45
Albania (1); Bosnia & Herzegovina (2); Bulgaria (2); Croatia (2); FYR Macedonia (2); Greece (4); Romaina (2) Serbia & Montenegro (2); Slovenia (1); Turkey (2); from international organisations (25).

3. Interuniversity Exchanges/ Partnerships

(Please specify:

Name and institutions involved in the exchange and partnership, number of persons- staff and students received, staff and students sent on exchange)

- EU Socrates Programme. 2-5 students exchange per year between France, Germany, Austria and Greece.

4. Publication and multimedia materials (2003-2004)

(Please estimate costs of publications and expected revenues from their sale)

Book

Ganoulis, J. and Prinos, P. (Eds.) *Linkage between Education, Research and Professional Development in Water Engineering*, 398 pp., Theme E, XXX IAHR (Int. Assoc. of Hydraulic Engineering and Research) Congress, Thessaloniki, Greece, 2003, IAHR Secretariat, Paseo Bajo Virgen del Puerto, 3, 28005 Madrid, Spain

(The book was printed together with the Congress Proceedings and distributed to 800 participants. No revenues).

Papers

2004

- 1 Arfib, B. and Ganoulis J. Physical Modelling of Seawater Intrusion within a Karst Aquifer: the Case Study of the Almyros of Heraklion, Crete. *C. R. Geoscience* 336, pp. 999-1006, Elsevier, 2004. (www.sciencedirect.com)
- 2 Ganoulis J. Water Resources Management and Environmental Security in Mediterranean Transboundary River Basins, NATO ARW on The Role of Risk Assessment in Environmental Security and Emergency Preparedness in the Mediterranean Region, Eilat, Israel, 15-18 April, 2004
- 3 Ganoulis J. and L. Simpson: Environmental Risk Assessment and Management: Promoting Security in the Middle East and the Mediterranean Region NATO ARW on The Role of Risk Assessment in Environmental Security and Emergency Preparedness in the Mediterranean Region, Eilat, Israel, 15-18 April, 2004
- 4 Ganoulis J. et al. (eds.): Inventory of Internationally Shared Aquifers in the Balkans Characteristics and State of Policies, UNESCO-IHP, INWEB, UNESCO_ISARM Consultative Workshop, Thessaloniki, 21-23 Oct. 2004 (draft)
- 5 Ganoulis J. et al. (eds.): Inventory of Internationally Shared Surface Water Bodies in the Balkan Region: Characteristics and State of Policies, UNESCO-Roste, INWEB, Zinke Environmental Consulting, UNESCO Workshop, Thessaloniki, 18-20 Oct. 2004 (draft)
- 6 Ganoulis J. Integrated Risk Analysis for Sustainable Water Resources Management *In: I. Linkov and A.B. Ramadan (eds.) Comparative Risk Assessment and Environmental Decision Making, NATO Science Series pp.275-286, Kluwer Academic, 2004*
- 7 Ganoulis, J. Environmental Risk Assessment from Submarine Outfalls: In *Proc. On CD-ROM of the MWWD 2004 – 3rd International Conference on Marine Waste Water Disposal and Marine Environment*, Catania, Italy, Sept.27-Oct.2, 2004
- 8 Ganoulis J: Engineering Risk Assessment and Management of Water Resources and Environmental Protection. Keynote Lecture, In: Proc. of papers on CD-ROM of 6th Int. Conf. on Hydro science and Engineering (ICHE-2004) May 30-June 3, The University of Mississippi, Vol. VI, pp. 8-10, Brisbane, Australia, 2004
- 9 Ganoulis J., E. Kolokytha and Y. Mylopoulos.: Multicriterion Decision Analysis for Conflict Resolution in Transboundary River Basins. In: *Proc. on CD-ROM of TRANSCAT Conf. on Integrated Water Management of Transboundary Catchments*, UNESCO Venice, Italy, March .24-26, 2003

2003

- 10 Ganoulis J. Risk-Based Floodplain Management: a Case Study from Greece. *Int. J. River Basin Management*, Vol. 1, No1, pp.1-7, 2003
- 11 Ganoulis J. Evaluating Alternative Strategies for Wastewater Recycling and Reuse in the Mediterranean Area. *J. of Wat. Sci. Tech.: Water Supply* 3, N^o4, pp.11-20, 2003
- 12 Mpimpas, H., P. Anagnostopoulos, D. and Ganoulis, J. Simulation of Cohesive and Non-Cohesive \Sediment Distribution in the Thermaikos Gulf. In: *Proc. 9th Congress of Greek Hydrotechnical Society*, pp. 547-554, Thessaloniki, 2003 (in Greek)
- 13 Vafiadis, M., Garefalakis, D. and Ganoulis, J. Analysis of Rainfall Data from the Experimental Basin of Giofyros, Heraklion, Crete. In: *Proc. 9th Congress of Greek Hydrotechnical Society*, pp. 69-76, Thessaloniki, 2003 (in Greek).
- 14 Ganoulis J. and K. Quartano: Regional Cooperative e-Networks: the Experience of "INWEB" in Sharing Transboundary Water Resources Information and Data. In: *Proc. XXX IAHR Congress, Theme E: Linkage between Educatio, Research and Professional Development in Water Engineering*, pp. 147-152, Thessaloniki, Greece, Aug.24-29, 2003
- 15 Ganoulis J., Anagnostopoulos, P. and H. Mpimpas: Fuzzy Numerical Simulation of Water Quality. In: *Proc. XXX IAHR Congress, Theme B: Urban and Rural Water Systems for Sustainable Development*, pp. 165-174, Thessaloniki, Greece, Aug.24-29, 2003
- 16 Ivaldi J.P. and Ganoulis J.: GIS setting of Satellite Images and Digital Terrain Model for Deep Groundwater Detection in Karst Environment: The Case of Almyros Spring, Heraklion, Crete. In: *Proc. XXX IAHR Congress, Theme B: Urban and Rural Water Systems for Sustainable Development*, pp. 589-596, Thessaloniki, Greece, Aug.24-29, 2003
- 17 Ganoulis J., E. Kolokytha and Y. Mylopoulos: Multicriterion Decision Analysis for Evaluating Water Use in Agriculture: A Case Study from Greece. In: *Proc. XXX IAHR Congress, Theme B: Urban and Rural Water Systems for Sustainable Development*, pp. 785-792, Thessaloniki, Greece, Aug.24-29, 2003
- 18 Ganoulis J., B. Arfib and G. De Marsily: The Hydraulics and Seawater Intrusion Mechanisms of Almyros Karst Spring, near Heraklion, Crete: In-situ Measurements and Numerical Simulation. In: *Proc. XXX IAHR Congress, Theme B: Urban and Rural Water Systems for Sustainable Development*, pp. 597-604, Thessaloniki, Greece, Aug.24-29, 2003

- **Teaching/learning material**

Title: Man and Environment in the 21st Century: Critical Problems

Author: J. Ganoulis (co-author for the section "water")

Publisher: Goulandri Museum for Natural History, Athens, Greece

Year: 2004

Language: Greek

Number of pages: 108 pp.

IV. Outcomes

Please describe shortly (up to 500 words) the major outcomes of the Chair/Network with special reference to their impact on the human, social, economical and cultural development at local, national, regional or international level. Whenever applicable indicate the impact of activities on promoting gender equality, rural development, attaining the Millennium Development Goals, Education For All and Sustainable development etc.

The principal outcomes of INWEB during the time period 2003-2004 are various research, cooperation and training programmes aiming to promote and ensure a **“Sustainable Management of Water and Conflict Resolution”**, particularly in the South Eastern Europe (the Balkans).

INWEB is an active network, having main partners from all the 10 Balkan countries. It focuses on water related environmental problems and how to contribute to sustainable development. In relation to the Millennium Development Goals, we should remind that the water related goals are:

- Halve, by the year 2015, the proportion of people without access to safe drinking water
 - every day until 2015, an extra 120,000 people should receive drinking water
- Halve, by the year 2015, the proportion of people who do not have access to basic sanitation
 - every day until 2015, an extra 240,000 people should be provided with sanitation
- Develop integrated water resources management and efficiency plans by 2005

INWEB's principal outcomes obtained during the period 2003/2004 are as follows:

- *Linking Education, Research and Professional Development:*
 - Organisation of a special theme E, Water Engineering Education, XXX International Congress of IAHR (Int. Association of Hydraulic Engineering and Research), Thessaloniki, 2003; publishing a special volume.
 - TECHWARE Presidency: TECHWARE (Technology for Water Resources) is an international non profit-making organisation within the framework of the programmes of the EU regarding transfer of knowledge and technology on Environment/Water. Prof. Jacques Ganoulis, Coordinator of UNESCO Chair/INWEB, was elected in 2003 President of TECHWARE.

These outcomes have a short and long term impact on socio-economic development and on better ways of Integrated Water Management. INWEB shares the idea proposed by different UNESCO projects like HELP (Hydrology, Environment, Life and Policy) and PC-CP (from Potential Conflict to Cooperation Potential) and also the *EU Water Initiative* that at present the “water crisis is mainly a crisis of governance”. One of the main problems of water governance is the “paradigm lock”, which is the lack of communication between scientists and professional decision makers. In order to break the “paradigm lock” and making water governance more effective linking between

education, research and profession should be encouraged and also partnerships between public, private and civil society actors have to be promoted. This was the INWEB's contribution during the period 2003-2004.

➤ Promoting Research, Training and International Cooperation:

- Active participation of INWEB in 2 EU research and cooperation projects (RIVERTWIN – A regional Model for Integrated Water Management in Twinned River Basins and CABRI- Cooperation Along a Big River: the case of Volga River) and in UNESCO / HELP (Hydrology for Environment, Life and Policy) programme.
- Training activities in the Balkans: Albania/UNESCO, PCCP-Balkans and VICAIRE projects.
- Developing inventories of International Waters in the Balkans (UNESCO/ISARM and UNESCO/ROSTE).

These activities generated a cooperation mechanism in support of the EU Water Initiative and will help to meet the Millennium Development Goals in the area of water policy.

The impacts of INWEBs research and training results address the European policies and initiatives on environment and water. It affects especially the European cooperation in the Balkans and between EU and candidate countries like Croatia, Bulgaria and Rumania.

➤ Dissemination of Knowledge, Results and Achievements:

- EU dissemination network ETNET21, Developing and distributing data bases on International Rivers and Aquifers in the Balkans.
- Special publications on Water Engineering Education (in English) and Man and Environment in the 21st Century (in Greek).

Dissemination was a major feature of INWEB, ensuring that the practical use of the project results will reach substantially beyond the project immediate participants. The most important dissemination channels and tools that the project envisages to employ are:

- a regularly updated website as the central dissemination platform and knowledgerepository of the project, containing all project documents, links to stakeholders and news (see www.inweb.gr)
- press releases and newsletters are planned at key project events for wide circulation of project news

V. Forthcoming activities

(Please outline the action plan for the current biennium)

The principal forthcoming activities of INWEB are foreseen as follows:

- promoting an integrated system of research, training, information and documentation activities in the fields of integrated water management, ecology, environmental sciences, economy, conflict resolution and international waters.
- providing advice and expertise to assist developing countries, particularly the Balkan countries, in:
 - establishing inter-sectoral pilot projects;
 - facilitating links between local, regional and global levels, and harmonising top-down and bottom-up approaches whilst taking into account social issues;
 - contributing to public education in the fields of water and environmental protection;
 - promoting training and professional development by providing distance learning;
 - developing inventories of existing transboundary water systems;
 - creating and maintaining databases on water and the environment
 - developing guidelines and protocols for the prevention of potential conflicts and the resolution of existing conflicts over water resources and values.

	ACTION PLAN 2005-2006		
		2005	2006
	Cabri: an EU funded research project		
	RiverTwin: an EU funded research project		
	TwinBasin EU an funded research project		
	EU Water Help: a UNESCO project		
	Update inventories on surface waters in the Balkans		
	Update inventory on groundwaters: ISARM-Balkans		
	Develop the PCCP –Balkans programme		
	Organise a NATO ARW (Advanced Research Workshop) in Thessaloniki		
	Vicaire: a Web based learning system		
	Hellas Aid programmes: Bosnia & Albania		

VI. Development prospects

Action aimed at obtaining a stable permanent status of the Chair/Network in the structure of the Institution

Short and medium term: Research, Training and Educational programmes

Long term: Developing a Virtual School for Water/Environment in the Balkans

Expanding activities : Building a new portal on the WEB, Distance Education

Broadening partnerships: Black Sea, Middle East, Mediterranean region

Mobilization of resources : Proposing a Mega-project to GEF/World Bank

Annex



UNESCO CHAIR AND NETWORK: INTERNATIONAL NETWORK OF WATER/ENVIRONMENT CENTRES FOR THE BALKANS (INWEB)

ACTIVITIES IN CHRONOLOGICAL ORDER

2003-2004

UNESCO CHAIR AND NETWORK: INWEB, Aristotle University Thessaloniki, Greece

1. Introduction

In the summer of 2003 and in the framework of the UNITWIN/UNESCO Chairs Programme, UNESCO created at the Aristotle University of Thessaloniki, Greece, , the UNESCO Chair and Network *International Network of Water-Environment Centres for the Balkans* (INWEB). The principal objective of INWEB and its related cooperation programmes is to promote and ensure in South Eastern Europe (the Balkans) the

“Sustainable Management of Water and Conflict Resolution”

INWEB is composed of the following main partners:

- Aristotle University of Thessaloniki (Thessaloniki, Greece) host of the Network
 - Hydrometeorological Institute (Tirana, Albania);
 - University of Ss. Cyril and Methodius (Skopje, FYR Macedonia);
 - Hydro-Engineering Institute (Sarajevo, Bosnia-Herzegovina);
 - University of Architecture, Civil Engineering and Geodesy (Sofia, Bulgaria);
 - University of Split (Split, Croatia);
 - University of Ljubljana (Ljubljana, Slovenia);
 - Istanbul Technical University (Istanbul, Turkey);
 - University of Belgrade (Belgrade, Serbia & Montenegro),
 - National Water Administration «Apele Romane» (Bucarest, Romania)
-
- General Manager: Prof. Jacques Ganoulis
 - Executive Secretary: Mrs. Katie Quartano

Main objectives

The principal objectives of INWEB’s cooperation programmes are to:

- promote an integrated system of research, training, information and documentation activities in the fields of meteorology, hydrology, water management, chemistry, biology, ecology, environmental sciences, economy, education, international law and sociology.
- provide advice and expertise to assist all countries, particularly the least developed, in:
 - establishing inter-sectoral pilot projects;
 - facilitating links between local, regional and global levels, and harmonising top-down and bottom-up approaches whilst taking into account social issues;
 - contributing to public education in the fields of water and environmental protection;
 - promoting training and professional development in the Balkans region by providing distance learning;
 - developing an inventory of existing transboundary water systems;
 - creating and maintaining a database on water and the environment by use of official, validated national data complementary to the EUROWATERNET, related to transboundary water bodies (rivers, lakes and coastal waters);
 - developing methods for evaluating and applying science and technology;
 - facilitating the international recognition of qualifications;
 - developing guidelines and protocols for the prevention of potential conflicts and the resolution of existing conflicts over water resources and values.

One of the main achievements of INWEB in 2003-2004 was the development of inventories of internationally shared waters in the Balkans, both surface and groundwaters. The surface waters inventory was achieved with the support of UNESCO-Regional Office for Science in

Europe (ROSTE), in cooperation with UNESCO International Hydrological Programme (IHP), Global Water Partnership-Mediterranean (GWP-Med), and the United Nations Economic Commission for Europe: Working Group on Monitoring and Assessment (UNECE), and together with the Hellenic National Commission for UNESCO and the Aristotle University of Thessaloniki. The groundwaters inventory was achieved together with the Hellenic National Commission for UNESCO, the Aristotle University of Thessaloniki and the International Association of Hydrogeologists / Transboundary Aquifer Resource Management (IAH / TARM) and in cooperation with UNESCO-IHP, UNECE, The Economic and Social Commission for W. Asia (ESCWA) and the Observatoire du Sahara et du Sahel (OSS)

2. Activities 2003-2004

■ UNESCO meeting in Delft, July 2003

In the context of the UNITWIN project, a meeting on *Water Education and Capacity Building* was organised by UNESCO in Delft from 15th-18th July. The meeting was attended by UNESCO Chair/INWEB's General Manager, Prof. Jacques Ganoulis.

■ XXXth IAHR Congress, August 2003

The International Association of Hydraulic Engineering and Research's XXXth congress was hosted by the Aristotle University of Thessaloniki from 24th-29th August 2003. The theme of the congress was Water Engineering and Research in a Learning Society: Modern Developments and Traditional Concepts. UNESCO Chair/INWEB had full-page coverage in the congress bulletins. The keynote lecture for theme E of the congress: Linkage between Education Research Professional Development in Water Engineering was delivered by Janos Bogardi and entitled "Education, Training, Capacity Building: Challenges of the Learning Society of the Water World". Prof. J. Ganoulis of UNESCO/Chair INWEB delivered a lecture during the congress's Special Session on Transboundary Water Issues on "Conflict Resolution in Internationally Shared Water Catchments". The congress attracted some 800 participants and the proceedings have been published in 6 volumes.

■ TECHWARE presidency, August 2003

Prof. Jacques Ganoulis, General Manager of UNESCO Chair/INWEB, and member of the network Technology for Water Resources (TECHWARE) in his capacity as representative of the Aristotle University of Thessaloniki, was elected President of TECHWARE in August 2003. TECHWARE is an international non profit-making organisation within the framework of the programmes of the EU regarding education, training, mobility and transfer of knowledge and technology.

<http://www.techwarenet.org>

■ **UNESCO CHAIR/INWEB UNESCO UNITWIN launching ceremony, August 2003**

Having received official approval of INWEB's appointment as a UNESCO Chair under the UNITWIN umbrella, the official launching ceremony of UNESCO Chair/INWEB's activities as part of the UNESCO operation took place in Thessaloniki during the XXXth IAHR Congress, 24-29 August.

■ **TECHWARE membership September 2003**

In September 2003 UNESCO Chair/INWEB joined TECHWARE (Technology for Water Resources).

<http://www.techwarenet.org>

■ **River Twin project, November 2003**

UNESCO/Chair INWEB is a partner in this STREPS project submitted for the first call of the EU 6th framework programme. The project aims to develop, adjust, test and implement an integrated regional model for the strategic planning of water resources management in twinned river basins under contrasting ecological, social and economic conditions. The model will be first tested in European river basins with high data availability and data density, and then the transferability of the model to other regions with different economic levels and ecological standards and low data availability will be tested in two river basins in Benin (West Africa) and Uzbekistan.

<http://www.rivertwin.org>

■ **Techware meeting Delft, November 2003**

In an effort to revitalise the Technology for Water Resources (TECHWARE) network, a brainstorming activity was held with ideas for new projects. UNESCO Chair/INWEB members Prof. M. Brilly (Slovenia), Prof. O. Bonacci (Croatia), Prof. D. Jabucar (Bosnia & Herzegovina), K. Quartano (Greece), Prof. E. Papachristou (Greece) and Prof. G. Mihailov (Bulgaria) presented project ideas, and an idea was also submitted in writing by Dr. P. Serban (Romania). Working groups will finalise projects to be submitted to European sponsors.

<http://www.techwarenet.org>

■ **UNESCO CHAIR/INWEB Board of Management meeting, November 2003**

UNESCO Chair/INWEB held a Board of Management meeting on 8th November 2003 in Delft, Holland. Minutes of the meeting may be found on the documents page of the UNESCO Chair/INWEB website:

<http://www.inweb.gr>

■ **ETNET21 dissemination project kick off meeting November 2003**

The ETNET21 dissemination project aims to make ETNET21 achievements and essential results visible and accessible through a number of regional centres within EU and accession countries. UNESCO Chair/INWEB was appointed the regional centre for the Balkans. These regional centres will operate on a Web-based "virtual laboratory" platform. <http://www.etnet21.bauinf.tu-cottbus.de>

UNESCO Chair/INWEB members attended the kick-off meeting held in Delft 5th-7th November 2003. Minutes of this meeting are available on the website:

<http://www.etnet21.bauinf.tu-cottbus.de/kickOffDelft>

■ **Educational programme for Human Rights and Peace, December 2003**

Prof. J. Ganoulis of UNESCO/Chair INWEB gave a lecture on "Water as a tool for peace" to the UNESCO Chair on Education for Human Rights and Peace, established at the Aristotle University of Thessaloniki in 1997. This educational programme aims to sensitise various target groups or the public at large on issues of human rights, peace and non-violence.

<http://www.unesco.auth.gr/unescochair>

■ **HELP UNESCO programme, January 2004**

UNESCO/Chair INWEB was actively involved in preparing a proposal, now approved, to enlist the Mesta/Nestos river catchment shared by Bulgaria and Greece into the Hydrology for the Environment, Life and Policy (HELP) UNESCO programme. The reasons why this basin were proposed were that (1) it combines internationally shared surface and ground waters, (2) environmental concerns are very high in the upper basin and the delta region, and (3) competing water uses are increasing after Greece has built a series of hydro-electrical plants and Bulgaria now struggles for a rapid economic growth in a market economy. The strong bilateral and multinational cooperation between partners, has promoted the application of innovative scientific methodologies, such as advanced hydrological modelling, remote sensing, GIS, groundwater exploration and alternative dispute resolution techniques. This project further promotes the concept of integrated water management in the HELP network and in other UNESCO projects, such as the ISARM and the PCCP programmes.

www.unesco.org/water/ihp/help

■ **UNESCO CHAIR/INWEB participation at UNESCO function, February 2004**

The Hellenic National Commission for UNESCO hosted a cultural evening at the Hellenic Ministry for Foreign Affairs, Athens, on Friday 27th February. UNESCO Chair /INWEB and other UNESCO-affiliated bodies in Greece attended this social event, which gave them the opportunity to get to know each other and exchange experiences and information.

■ **CABRI proposal, April 2004**

UNESCO/Chair INWEB is a consortium member in a proposal submitted to the European Commission, 6th Framework programme on Research, Technological Development and Demonstration entitled CABRI - Cooperation Along a Big River: Institutional coordination among stakeholders for environmental risk management in the Volga basin. The project aims to facilitate cooperation and to coordinate research in environmental risk management in river basins in the EU, Russia and the NIS. It focuses on the Volga basin, where environmental risk management is fundamental for protecting the environment, improving socio-economic conditions and promoting agricultural and industrial economies, as well as the health of the Caspian Sea.

<http://www.rupprecht-consult.de/>

■ **UNESCO Chair/INWEB project: "Training in Water & Wastewater treatment: Recent technologies and EU regulations" May 2004**

This project will be implemented between 1st May and 31st December 2004 and forms part of UNESCO IHP's biennial programme 2004-2005. It is linked to the Urban Water Management Focal Area of IHPVI and is sponsored by Fondazione AMGA-ONLUS through the MoU UNESCO-AMGA, within the framework of the UNESCO-IHP Initiative GOUTTE of Water. Its goal is to offer assistance in the process of adapting urban water management in Albania to the EU Water Framework Directive by organising training of professionals and decision-makers from Albania

■ **Earth Imaging EU/USA Consortium, Xanthi, May 2004**

This course on image processing applied to remote sensing was held at Democritus University of Thrace, Greece within the cooperative programme in Higher and Vocational Education and Training between the European Community and the United States of America. Participation involved lecturers from West Virginia University, USA; Ecole des Mines de Paris, France; Democritus University of Thrace, Greece, and UNESCO Chair/INWEB. The course objectives were to open the minds of participants to the synoptic view of the Earth seen from space and the challenging problems generated by the enormous quantity of observation data, to provide a clear understanding of the many facets of image processing both in terms of physics of measurements, visualization techniques and content understanding, and to offer "hands on" practice and familiarity with the realities of remote sensing software data processing in conjunction with applications and interpretation problems. The lecture delivered by Prof. J. Ganoulis of UNESCO Chair/INWEB was entitled "Sustainable water resources management in transboundary river basins".

■ **Dissemination meeting for ETNET21 project for SE Europe, June 2004**

As the regional centre for dissemination of the results and achievements of the ETNET21 project, UNESCO Chair/INWEB organised a meeting in Thessaloniki from 18th-19th June 2004. The meeting concentrated on distance learning opportunities in the Balkans, and included a presentation of HydroWeb and DCMS (Document Management System). Participants from Slovenia, Turkey, Romania, Bulgaria, Greece and Germany attended the meeting.

<http://www.etnet21.bauinf.tu-cottbus.de/kickOffDelft>

■ **E-learning VICAIRE project, June 2004**

VICAIRE (Virtual Campus in Hydrology and Water Resources) is a long-distance learning course developed by l'Ecole Polytechnique Fédérale de Lausanne (EPFL) in cooperation with other institutions in Eastern Europe. VICAIRE has agreed to transfer the knowledge within the VICAIRE project via UNESCO to UNESCO Chair/INWEB.

<http://www.epfl.ch/>

■ **UNESCO Participation Programme, June 2004**

UNESCO Chair/INWEB submitted a proposal to the UNESCO Participation Programme 2004-2005 entitled "Water Education and Training (WET) for Sharing International Waters in the Mediterranean and South-Eastern Europe (WETMED). This proposal aims to create a regional cooperation for education and training in

the Mediterranean and SE Europe. It addresses a large spectrum of education levels, starting from upper primary and secondary education, up to vocational training and university education. It was awarded priority (2) by the Hellenic National Commission for UNESCO.

<http://www.portal.unesco.org/en/ev.php>

■ **UNESCO workshop on surface waters, Thessaloniki, October 2004**

With the support of UNESCO-Regional Office for Science in Europe (ROSTE), in cooperation with UNESCO International Hydrological Programme (IHP), Global Water Partnership-Mediterranean (GWP-Med), and the United Nations Economic Commission for Europe: Working Group on Monitoring and Assessment (UNECE), and together with the Hellenic National Commission for UNESCO and the Aristotle University of Thessaloniki, UNESCO Chair/INWEB will hold a workshop entitled "Development of an Inventory of Internationally Shared Surface Waters in South Eastern Europe" from 18th-20th October 2004. The main objective of this workshop is to review existing data, compile an inventory and identify key issues for sustainable management of transboundary surface waters in the Balkans region. Preparation for this international workshop has concentrated on collating existing data on transboundary river and lake basins from all Balkan countries. Approximately 30 experts will participate.

<http://www.inweb.gr/workshops>

■ **ISARM-MED / UNESCO Chair/INWEB meeting Thessaloniki, October 2004**

Together with the Hellenic National Commission for UNESCO, the Aristotle University of Thessaloniki and the International Association of Hydrogeologists / Transboundary Aquifer Resource Management (IAH / TARM) and in cooperation with UNESCO-IHP, UNECE, The Economic and Social Commission for W. Asia (ESCWA) and the Observatoire du Sahara et du Sahel (OSS) UNESCO Chair/INWEB will hold a consultative meeting in Thessaloniki, Greece from 21-23 October 2004, entitled "Key Issues for Sustainable management of Transboundary Aquifers in the Mediterranean and in South Eastern Europe". The main objective of this workshop is to identify and more clearly define internationally shared aquifers, and compile an inventory of existing information for the Balkans and Mediterranean region. Preparation for this international meeting has concentrated on collating existing data on transboundary aquifers from all Balkan countries. Approximately 40 experts will participate.

<http://www.inweb.gr/workshops>