

NATIONAL REPORT ON IHP RELATED ACTIVITIES OF THE REPUBLIC OF POLAND

1. ACTIVITIES UNDERTAKEN IN THE PERIOD JULY 2006 – MAY 2008

1.1 Meetings of the IHP National Committee

1.1.1 Decisions regarding the composition of the IHP National Committee
The Polish Academy of Sciences has established the Committee for International Hydrological Programmes. Its Sub-committee for IHP/UNESCO consists of three persons:

Prof. Dr Witold G. Strupczewski – Chairman (e-mail: wgs@igf.edu.pl)
Dr Artur Magnuszewski – Secretary (email:asmagnus@uw.edu.pl)
Prof. Dr Maciej Zalewski – member (email:mzal@biol.uni.lodz.pl).

Informal meetings and other forms of contacts are very frequent.

1.1.2 Status of IHP-VI activities

IHP-VI Ecohydrology. International Institute of Polish Academy of Sciences, European Regional Centre for Ecohydrology under the auspices of UNESCO (ERCE) and Department of Applied Ecology, University of Lodz (UL) headed by Prof. M.Zalewski and Dr I. Wagner.

Northern European FRIEND

Project 2. "Low Flows". The team headed by Prof. E. Kupczyk (Faculty of Geography and Regional Studies, Warsaw University) participates in execution of this project. The members of the team: Adynkiewicz-Piragas M., Dubicki A. (IMWM – Wroclaw), Jakubowski W. (Agricultural Academy – Wroclaw), Kasprzyk A., Mordalska H., Pokojski W., Suligowski R. and Tokarczyk T.

Project 5. "Catchment hydrological and biogeochemical processes in changing environment". Department of Hydrology, Faculty of Geography and Regional Studies, Warsaw University actively participates in the Project execution. Prof. M. Gutry-Korycka acts as the coordinator of the team consisting of seven persons: Dr Artur Magnuszewski, Dr Urszula Somorowska, Dr Barbara Nowicka, Dr Maciej Lenartowicz, Dr Dariusz Woronko, Dr Jarosław Suchożębrski and Dr Aneta Afelt. Their work is closely related to the activity in **European Network of Experimental and Research Basins (ERB)** – the team of Jagiellonian University, Krakow headed by National Correspondent of ERB Prof. W. Chelmicki.

Team 2, Focal Area 2.1. "Extreme events in land and water resources management" – Flood Frequency Modelling – the team of Institute of Geophysics PAS, Krakow Technical University and Texas A & M University headed by Prof. W.G. Strupczewski

1.1.3 Decisions regarding contribution to/participation in IHP-VII
We would like to participate in IHP VII.

1.2 Activities at national level in the framework of the IHP

1.2.1 National/local scientific and technical meetings

1.2.2 Participation in IHP Steering Committees/Working Groups

International Institute of Polish Academy of Sciences, European Regional Centre for Ecohydrology under the auspices of UNESCO (ERCE) and Department of Applied Ecology, University of Lodz (UL):

Prof. Maciej Zalewski:

- Member of the Steering Committee of UNESCO IHP Programme on Ecohydrology

Dr Iwona Wagner:

- Member of Task Force for IHP-VII drafting
- Co-chairman of the Task Force for Demonstration Projects on Ecohydrology

- Member of the core group of the Steering Committee of UNESCO IHP Programme on Ecohydrology

1.2.3 Research/applied projects supported or sponsored

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

Co-operation of ERCE and UL :

- UNESCO - Man & Biosphere Programme
- UNESCO HELP
- UNEP-IETC: International Environmental Technology Centre (IETC)
- UNEP-GEMS WATER
- SIL: International Society of Limnology
- InterAcademy Panel: A global network of the world's science academies (Co-ordination of the European Region Water Project)

1.2.5 Other initiatives

1.3 Educational and training courses

1.3.1 Contribution to IHP courses

ERCE and UL: Participation in the courses related to Ecohydrology and IHP activities as lecturers:

- Launching of the 5th edition of the MSc Course on Ecohydrology, 2 Invited Lectures on Ecohydrology – Dr Iwona Wagner; University of La Plata, March 2007, Argentina.
- Colloquium on Lakes and Reservoir Management, 31 July 2007, Malaysia – Prof. M. Zalewski: invited lecturer

1.3.2 Organization of specific courses

1.3.3 Participation in IHP courses

1.4 Cooperation with the UNESCO-IHE Institute for Water Education and/or international/regional water centres under the auspices of UNESCO

ERCE and UL co-operation with UNESCO IHE:

- Joint European Project:
2005-2010- SWITCH - Sustainable Water Management Improves Tomorrow's Cities' Health. Project Officer for the project partner - University of Lodz

ERCE and UL co-operation with regional water centers under the auspices of UNESCO:

- University of Lodz (UL) cooperates with **ERCE - International Institute of the Polish Academy of Sciences, European Regional Centre for Ecohydrology under the Auspices of UNESCO**, based on the co-operation agreement;
- ERCE and UL co-operates with the **International Centre for Water Hazard and Risk Management u/a of UNESCO, Tsukuba, Japan (ICHARM)**. e.g.,: Joint organization of a conference:
International Conference: "Ecohydrological Processes and Sustainable Floodplain Management Opportunities and Concepts for Water Hazard Mitigation, and Ecological and Socioeconomic Sustainability in the Face of Global Changes", under the auspices of International Hydrological Programme UNESCO and InterAcademy Panel Water Programme, 19-23 May 2008, Lodz, Poland. Conference dedicated to the 50th Anniversary of Scientific Activity of Professor John E. Thorpe.

ERB :

Steering committee meeting in Brno (Czech Republic), 4 September 2007.

W. Chełmicki presented the main theme of the conference 'Hydrological extremes in small basins'. The leading conference topics and technical details on the conference announcement were discussed. The steering committee members agreed that the proceedings of oral presentations would be published in the UNESCO Tech. Documents in Hydrology series and the full papers of posters would be published in the journal series of '*Folia Geographica, ser. Geographica Physica*'.

1.5 Publications

ERCE and UL:

Zalewski, M. 2006. Ecohydrology an interdisciplinary tool for integrated protection and management of water bodies. Arch. Hydrobiol. Suppl. 158/4; pp. 613-622.

Madsen, B.L., Boon, P.J., Lake, P.S., Bunn, S.E., Dahm, C.N., Langford, T.E., Zalewski, M. 2006. Ecological principles and stream restoration. Verh. Internat. Verein. Limnol. 29; pp. 2045-2050.

Zalewski, M. 2006. Fritz Schiemer – a positive driving force in the development of Ecohydrology. Ecohydrology & Hydrobiology Vol. 6(1-4); pp 3-4.

Kiedrzyńska, E., Józwick, A. 2006. Analiza procesu transportu rumowiska unoszonego na tle dynamiki przepływów rzeki Pilicy z wykorzystaniem metod statystycznych. Infrastruktura i Ekologia Terenów Wiejskich, Komisja Infrastruktury Wsi PAN, Kraków 3-4; pp. 45-53.

Altınakar, M., Biedrzyńska, E., Magnuszewski, A. 2006. Modelling of inundation pattern at Pilica river floodplain, Poland. In: Demuth S., Gustard A., Planos E., Scatena F. & Servat E. (Eds) Climate Variability and Change—Hydrological Impacts . IAHS Publications 308; pp. 579-585.

Kaczorowski, D., Sekulska-Nalewajko, J., Biedrzyńska, E. 2006. Three-dimensional model of flooding of the river floodplain - visualization of ecohydrological interactions. In: Mkhaylo Lobur (Ed.). MEMSTECH. Technical University of Lviv, Ukraine; pp. 146-148.

Zalewski, M., Lapinska, M., Wagner, I. 2006. RIVER ECOSYSTEMS, in Fresh Surface Water, [Prof. Masashi Sekiguchi], in Encyclopedia of Life Support Systems (EOLSS), Eolss Publishers, Oxford, UK, [<http://www.eolss.net>]Eolss Publishers, Oxford ,UK, [<http://www.eolss.net>].

Higler, L.W.G., Lapinska, M., Zalewski, M. 2006. ECOTONES, in Fresh Surface Water, [Prof. Masashi Sekiguchi], in Encyclopedia of Life Support Systems (EOLSS). Eolss Publishers, Oxford, UK, [<http://www.eolss.net>].

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Bednarek, A., Zalewski, M. 2007. Potential effects of enhancing denitrification rates in sediments of the Sulejow Reservoir. Environment Protection Engineering, 33 (2); pp. 35-43.

Bednarek, A., Zalewski, M. 2007. Management of lowland reservoir littoral zone for enhancement of nitrogen removal via denitrification. In: Okruszko, T., Maltý, E., Szatyłowicz, J., Świątek, D., Kotowski, W. (Eds). Wetlands: Monitoring, Modeling and Management, A.A. Balkema Publishers – Taylor & Francis Group; pp. 293-299.

Drobniewska, A., Michalska-Hejduk, D., Sumorok, B. 2007. Hydrological and chemical changes of dehydrated peatland generated by the different agriculture management – Goslub in the Bzura River Valley (Poland). In: Okruszko, T., Maltý, E., Szatyłowicz, J., Świątek, D., Kotowski, W. (eds). Wetlands. Monitoring, modelling and management, A.A. Balkema Publishers – Taylor & Francis Group; pp. 307 – 313.

Drobniewska, A., Sumorok, B., Nałęcz-Jawecki, G., Sawicki, J. 2007. The toxicity analyses of soil and sediments as a first step during remediation of degraded rivers valley – a case study on the Pilica, Bzura, Ner and Utrata Rivers In: Soil protection

strategy – needs and approaches for policy support, IUNG, Puławy. ISBN: 83-89576-03-1.

Krauze, K., Zawilski, M., Wagner, I. 2008. Habitat Rehabilitation: Goals, Constraints and Techniques. In: Wagner, I., Marsalek, J., Breil, P. (eds). 2008. Aquatic Habitats in Sustainable Urban Water Management: Science, Policy and Practice. Taylor and Francis/Balkema: Leiden.

Magnuszewski, A., Kiedrzyńska, E., Wagner-Łotkowska, I., Zalewski, M. 2007. Numerical modeling of material fluxes on the floodplain wetland of the Pilica River, Poland. In: Okruszko, T., Malty, E., Szatyłowicz, J., Świątek, D., Kotowski, W. (Eds). Wetlands: Monitoring, Modeling and Management, A.A. Balkema Publishers – Taylor & Francis Group; pp. 205-210.

Palus, J., Dziubałtowska, E., Stańczyk, M., Lewińska, D., Mankiewicz-Boczek, J., Izydorczyk, K., Bonisławska, A., Jurczak, T., Zalewski, M. 2007. Wąsowicz W. Biomonitoring of cyanobacterial blooms in Polish water reservoir and the cytotoxicity and genotoxicity of selected cyanobacterial extracts, *Int. J. Occupa. Med. Environ. Health*, 20 (1); pp. 48-65.

Sumorok, B., Kiedrzyńska, E. 2007. Mycorrhizal status of native willow species at the Pilica River floodplain along moist gradient. In: Okruszko, T., Malty, E., Szatyłowicz, J., Świątek, D., Kotowski, W. (Eds). Wetlands: Monitoring, Modeling and Management, A.A. Balkema Publishers – Taylor & Francis Group; pp. 281-286

Wagner, I., Marsalek, J., Breil, P. (eds). 2008. Aquatic Habitats in Sustainable Urban Water Management: Science, Policy and Practice. Taylor and Francis/Balkema: Leiden.

Zalewski, M. *Water, ecosystems, society, Akademia*, 2007, 4 (12); pp. 46-47.

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Zalewski, M. 2007. Ecohydrology as a Concept and Management Tool. In: King, C., Ramkinssoon, J., Clüsener- Godt, M., Adeel, Z. (eds.). *Water and Ecosystems. Managing water in Diverse Ecosystems To Ensure Human Well-being*, UNU-INWEH UNESCO MAB; pp. 39-53.

Zalewski, M., Izydorczyk, K. 2007. Ekohydrologia - systemowe podejście do ochrony i rekultywacji jezior. W: *Ochrona i rekultywacja jezior*. Wiśniwski R. i Piotrowiak J. (eds), *Polskie Zrzeszenie Inżynierów i Techników Sanitarny Oddział Toruń*; pp. 211-219.

Kiedrzyńska, E., Wagner-Łotkowska, I., Zalewski, M. 2008. Quantification of phosphorus retention efficiency by floodplain vegetation and a management strategy for a eutrophic reservoir restoration. *Ecological Engineering*. 33: pp.15-25.

Krauze, K., Wagner, I. 2008. An ecohydrological approach for the protection and enhancement of ecosystem services. In: *Use of landscape sciences for the assessment of environmental security*. Springer-Verlag Publisher; pp. 177-207.

Henn, T., Łapińska, M., Zalewski, M., Olšauskytė, V., Skorupskas, R., Briede, A., Druvietis, I., Gavrilova, G., Parele, E., Sprinige, G., Gaumiga, R., Melnik, M.M., Aleksandrov, J.V. 2008. Chapter 16. BALTIC AND EASTERN CONTINENTAL RIVERS. In: Tockner, K., Robinson, C.T., Uehlinger, U. (eds). *Rivers of Europe*. Elsevier (in press).

Izydorczyk, K., Jurczak, T., Wojtal-Frankiewicz, A., Skowron, A., Mankiewicz-Boczek, J., Tarczyńska, M. 2008. Influence of abiotic and biotic factors on microcystin content in *Microcystis aeruginosa* cells in a eutrophic temperate reservoir. *Journal of Plankton Research* (in press).

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Schmidt, W., Bornmann, K., Imhof, L., Mankiewicz, J., Izydorczyk, K. 2008. Assessing Drinking Water Treatment Systems for Safety Against Cyanotoxin Breakthrough Using Maximum Tolerable Values, *Environ Toxicology* (in press).

Wojtal-Frankiewicz, A., Bogusz, D., Menshutkin, V., Izydorczyk, K., Frankiewicz, P., Wagner-Łotkowska, I., Zalewski, M. 2008. Study of the Daphnia-Leptodora-juvenile Percids interactions using DALIS model in biomanipulated Sulejow Reservoir. *International Journal of Limnology* (in press).

Others

Bieroza, M., B.Nowicka (2006) Uncertainty In lake net groundwater flow assessment In the river lake systems (the water budget metod) [In:] L Pfister, P. Matgen, van den Bos, R. & L. Hoffmann, Uncertainties in the monitoring- conceptualization-modelling sequence of catchment research, ERB2006, programme- Abstracts - List of participants, Luxemburg, 20-23 September 2006, Centr de Recherche Public Gabriel Lippmann, p. 69.

Cyberski, J., M.Grześ, M. Gutry-Korycka, E. Nachlik, Z.W. Kundzewicz, (2006) History of floods on the River Vistula. *Hydrological Sciences-Journal, Special issue: Historical Hydrology*, IAHS Press, vol. 51, Number 5, October 2006, 799-817.

Gutry-Korycka M. (2006) Outflow from Urbanized Basins (local, regional and global similarity). *Papers on Global Change IGBP*, No. 13, 115-136.

Gutry-Korycka M., A. Magnuszewski, J. Suchożeberski, W. Jaworski, M. Marcinkowski, M. Szydłowski M. (2006) Numerical estimation of flood zones in the Vistula River valley, Warsaw, Poland. [In:] *Climate Variability and Change—Hydrological Impacts* (Proceedings of the Fifth FRIEND World Conference held at Havana, Cuba, November 2006), IAHS Publ. 308, 191-195.

Gutry-Korycka M. (2007) The heat cycle - the water cycle and changes in land use. *Papers on Global Change IGBP*, No 14., 37-50.

Kochanek, K., W.G. Strupczewski, V.P. Singh, S. Weglarczyk (2008) The PWM large quantile estimate of heavy tailed distributions from samples deprived of their largest element, *Hydrol. Sc. J.*, 53(2), 367-386.

Magnuszewski A. (2007) Hydrological controls of the groundwater vulnerability maps (case study of the lower Vistula valley near Plock).". [In:] Witkowski A.J., Kowalczyk A., Vrba J. (Editors). *Ground water vulnerability assessment and mapping International Association of Hydrogeologists Selected Papers*. Taylor and Francis, London; 145-153.

Markiewicz, I., W.G. Strupczewski, K. Kochanek, V.P. Singh (2006) Relationships between three dispersion measures used in flood frequency analysis. *SERRA DOI* 10.1007/s0047-006-0033-x.

Markiewicz, I., W.G. Strupczewski, K. Kochanek, V.P. Singh (2006) Discussion on „Non-stationary pooled flood frequency analysis” by J.M. Cunderlik and D.H. Burns [J.Hydrol. 276 (2003) 210-223], *J.Hydrol.* 330, 382-386.

Mitosek, H.T., W.G. Strupczewski, and V.P. Singh (2006) Three procedures for selection of annual flood peak distribution. *J. Hydrol.* 323, 57-73.

Singh, V.P., W.G. Strupczewski (2007) Editors. Editorial. Special issue: Copulas in Hydrology. *J. of Hydrologic Engineering*, V.12, No.4, 345.

Somorowska, U. (2006) Quantifying the uncertainties in the terrestrial water storage-runoff relation using in-situ soil moisture data. [In:] L. Pfister, P. Matgen, R. Van de Bos, L. Hoffmann (Editors), *Uncertainties in the 'monitoring-conceptualisation-modelling' sequence of catchment research* (Proceedings of 11th biennial conference of the Euro-Mediterranean network of experimental and representative basins ERB), 55-57, Belvaux, Luxembourg.

Strupczewski, W.G., V.P. Singh, S. Weglarczyk, K. Kochanek, H.T. Mitosek (2006) Complementary aspects of linear flood routing modelling and flood frequency analysis. *Hydrol. Processes*, 20, 3535-3554.

Strupczewski, W.G., V.P. Singh, K. Kochanek (2007) Selected problems of at-site flood frequency analysis. In: *Methodology in Hydrology* (Editors: Ren L., Q. Li, D. Zhang, J. X.), IAHS Publ. 311, 197-203.

Strupczewski, W. & K. Kochanek (2006). On thermal inversion observed in Liberian lagoons during dry season. In: *Coastal Hydrology and Processes*, edited by V.P. Singh and Y.J. Xu, *Water Resources Publications*, Highlands Ranch, pp.395-402.

Strupczewski, W.G., K. Kochanek, S. Weglarczyk, V.P. Singh (2007) On robustness of large quantile estimates to largest elements of the observation series. *Hydrol. Process* 21, 1328-1344. DOI 10.1002/hyp.6342.

Strupczewski, W.G., K. Kochanek, V.P. Singh (2007) On the informative value of the largest sample element of log-Gumbel distribution. *Acta Geophysica*, 55, 4, 652-678. DOI : 10.2478/s11600-007-0027-1.

Strupczewski, W.G., I. Markiewicz., K. Kochanek, V.P. Singh (2008) Short Walk into Two-Shape Parameter Flood Frequency Distributions. In: *Hydrology and Hydraulics*, edited by V.P. Singh, *Water Resources Publication, LLC*, Highlands Ranch, Colorado, Section 3.

Szydłowski M., A. Magnuszewski (2007) Free surface flow modeling in numerical estimation of flood risk zones: a case study. *TASK Quarterly - Gdańsk* : TASK Publishing - Vol. 11, No 4 , 301-313.

1.6 Participation in international scientific meetings

1.6.1 Meetings hosted by the country

2006 European Regional Workshop of IAP Water Programme on "Coupling Surface and Groundwater Researches: A New Step Forwards Towards Water Management". Magnuszewski A. – presentation 'Hydrological control of the ground water quality' 28-30.09.2006. Lodz, Poland,

2007 VI Konferencja Naukowo-Techniczna: Ochrona i rekultywacja jezior. Ekohydrologia - systemowe podejście do ochrony i rekultywacji jezior. June 2007, Poland.

2008 International Conference: "Ecohydrological Processes and Sustainable Floodplain Management Opportunities and Concepts for Water Hazard Mitigation, and Ecological and Socioeconomic Sustainability in the Face of Global Changes", under the auspices of International Hydrological Programme UNESCO and InterAcademy Panel Water Programme, 19-23 May 2008, Lodz, Poland. Conference dedicated to the 50th Anniversary of Scientific Activity of Professor John E. Thorpe.

1.6.2 Participation in meetings abroad

Ecohydrology

2006 8th Kovacs Colloquium. Maciej Zalewski – "Flood pulses and river ecosystem robustness". France.

2006 MAB PHI Seminar on Ecohydrology. Maciej Zalewski – "Ecohydrology as a concept and tool for enhancement of ecosystem services". Rumania.

2006 International Conference on Perspective Technologies and Methods in MEMS Design. Edyta Kiedrzyńska – "Three-dimensional model of flooding of the river floodplain - visualization of ecohydrological interactions". Ukraine.

2007 International network of urban biospheres. Agata Drobniewska – “Ecohydrology concept for integrated urban water management”. Istanbul workshop. November 2007, Turkey.

2007 First Scientific Meeting of SWITCH Projekt. Katarzyna Izydorczyk – “Inclusion of ecohydrology concept as integral component of IUWM”. January 2007, Great Britain.

2007 Lahti Science Day, 27 November 2007. Katarzyna Izydorczyk – “Ecohydrology as a tool for Integrated Watershed Management”. Finland.

2007 ILTER Coordinating Committee Meeting. Kinga Krauze – “ILTER Science Agenda: A Science to Meet the Challenges of Sustainable Global Ecosystems”. 20-28 August 2007, Beijing, China.

2007 2nd SWITCH Scientific Meeting. Kinga Krauze - “Building integrated strategy to increase resilience of urban catchments - Ecohydrological approach”. 25-29th November 2007, Tel Aviv. Israel.

2007 ANET: ALTER-Net All Parties' Conference. Kinga Krauze - “UNESCO-UNEP Pilica Demonstration Site - a potential European LTSER Platform”. 5-9 January 2007, Majorca, Spain.

2007 Fifth Symposium for European Freshwater Sciences. Joanna Mankiewicz-Boczek – “Occurrence of microcystin-producing cyanobacterial in Polish water bodies and associations with environmental factors”. 8-13 July 2007, Palermo, Italia.

2007 SIL Congress: Redefining Theoretical and Applied Limnology for the 21st Century. Organisation of Special session on Ecohydrology: Ecohydrology as a Tool for Integrated Watershed Management (organizers: Richard D. Robarts, UNEP GEMS/Water Programme, Maciej Zalewski & Iwona Wagner, ICE PAS, Christiane Hudon, Environment Canada). 12-18 August 2007, Montreal, Canada.

2007 SIL Congress: Redefining Theoretical and Applied Limnology for the 21st Century. Iwona Wagner & Maciej Zalewski - “The Limnological Research as a Basis of Development And Implementation of Ecohydrology”. 12-18 August 2007, Montreal, Canada.

2007 SIL Congress: Redefining Theoretical and Applied Limnology for the 21st Century. Iwona Wagner – “Ecohydrology Concept as an Integral Component of Systemic Urban Water Resources Management”. 12-18 August 2007, Montreal, Canada.

2007 International Symposium: New Directions in Urban Water Management, UNESCO Head Quarters. Iwona Wagner – “Urban Aquatic Habitats in Integrated Urban Water Management”. 11 - 14 September 2007, Paris, France.

2007 International Symposium: New Directions in Urban Water Management, UNESCO Head Quarters. Iwona Wagner – “Inclusion of Ecohydrology Concept as Integral Component of Systemic in Urban Water Resources Management. The City of Lodz Case Study”. 11 - 14 September 2007, Paris, France.

2007 International Symposium: New Directions in Urban Water Management, UNESCO Head Quarters. Maciej Zalewski - Organisation of session and lecture: “Ecohydrology – the use of water and ecosystem processes for healthy human environments”. 11 - 14 September 2007, Paris, France.

2007 International Symposium: River Restoration - Decision Making Process and Success Evaluation. Maciej Zalewski – Invited lecture: “Ecohydrology for River Restoration- Decision Making Process”. 4-6 September 2007, Kartause Ittingen, Switzerland.

Others:

2006 ERB Uncertainties in the 'monitoring-conceptualisation-modelling' sequence of catchment research, Afelt A. – Poster ‘The Loess Mictrostructure Transformation Through Infiltration Processes in Blind Drainage’ ; Jakubowski W. – Presentation „Does the threshold level selection have an influence on the low flow extreme indices distributions?”; Nowicka B., M. Bierozza – Poster ‘Uncertainty in lake net groundwater flow assessment in the river-lake systems (the water budget method)’ ; Somorowska U.

– Presentation 'Quantifying the uncertainties in the terrestrial water storage-runoff relation using in-situ soil moisture data'. 18-23.09.2006, Luxembourg.

2007 Workshop on 'Water balance and runoff/water quality generation in tile-drained agricultural catchments'. Chełmicki W., J. Siwek., M. Żelazny – Presentation: "Land-use as a factor determining streamwater chemistry dynamics in small Carpathian Foothill's catchments". 5.09.2007, Brno, Czech Rep.

2007 XXIV General Assembly IUGG 2007. Session HW2003 'Analysis of Variability in hydrological data series': Kochanek, K., W.G. Strupczewski, V.P. Singh, S. Węglarczyk – Presentation "Probability weighted moments techniques applied to heavy-tailed distributed samples deprived of largest element"; Markiewicz, I., W.G. Strupczewski, K. Kochanek – Presentation "Initial study of two-shape-parameter flood frequency distributions". Perugia 2-13 July 2007.

2007 XXIV General Assembly IUGG 2007. Session HW3008 'Changes to hydrological extremes and water quality': Strupczewski W.G., K. Kochanek, W. Feluch – Presentation "On non-stationary flood frequency analysis". Perugia 2-13 July 2007

1.7 Other activities at regional level

1.7.1 Institutional relations/cooperation

1.7.2 Completed and ongoing scientific projects

ERCE and UL:

1. 2005-2010- SWITCH - Sustainable Water Management Improves Tomorrow's Cities' Health. Project Officer for the project partner - University of Lodz; Project Coordinator: UNESCO-IHE; EU FP6 IP Project;
2. UNESCO IHP Demonstration Site "Application of Ecohydrology and Phytotechnologies for Water Resources Management and Sustainable Development"; Project Coordinator –Prof. Maciej Zalewski, Dr Iwona Wagner
3. ALTER: A Long Term Biodiversity, Ecosystem and Awareness Research Network Supporting institution: EC GOCE-CT-2003-5052298-Alter-Net; Co-ordination: M. Zalewski, K. Krauze Duration time: 2004-2009; www.alter-net.info
4. LORIS WIZJA Regional Technological Foresight; – long-term predictions about technological development in the Lodz Province – to 2020; www.loriswizja.pl
5. UNESCO IHP – Demonstration Projects on Ecohydrology – Coordination on behalf of UNESCO.

2. FUTURE ACTIVITIES

2.1 Activities planned until December 2009

University of Warsaw Hydrology Department plans to continue cooperation with Friend program (group 5. Catchment hydrological and biogeochemical processes in changing environment") and ERB. Prof. M. Gutry-Korycka acts as the coordinator of the team consisting of seven persons: Dr Artur Magnuszewski, Dr Urszula Somorowska, Dr Barbara Nowicka, Dr Maciej Lenartowicz, Dr Dariusz Woronko, Dr Jarosław Suchożębrski and Dr Aneta Afelt.

Jagiellonian University, Institute of Geography and Spatial Management together with ERB, IHP UNESCO North European FRIEND Project 5 and IAHS Prediction in Ungauged Basins (PUB) organizes 12th Biennial Conference of Euromediterranean Network of Experimental and Representative Basins "Hydrological extremes in small basins". The conference will take place in Kraków on 18-20 September 2008. The details are announced at www.geo.uj.edu.pl/erb2008/. Prof. W.Chełmicki is a member of international scientific committee. The local organizing committee consists of: W. Chełmicki (coordinator), M. Baścik, M. Kasina, A. Magnuszewski, J. Pociask-Karteczka, B.Rzonca, R. Soja, J. Siwek, M. Żelazny.

- 2.2 Activities foreseen for 2010-2011**
- 2.3 Activities envisaged in the long term**