



United Nations Educational, Scientific and Cultural Organization
Organisation des Nations Unies pour l'éducation, la science et la culture

SC/HYD/815(574/518.1; 574/527; 571/4)

INTERNATIONAL HYDROLOGICAL PROGRAMME
PROGRAMME HYDROLOGIQUE INTERNATIONALE



Division of Water Sciences
Division des sciences de l'eau
1, rue Miollis, 75732 Paris Cedex 15
Telephone (direct) : (33 1) 45 68 39 97
Facsimile no : (33 1) 45 68 58 11
Internet : m.bonell@unesco.org

5 November 2002

Dear Colleagues,

Subject: *Draft version of the outputs from the Expert IHP-IAEA Workshop, Warsaw, 3-7 July 2002: New strategies for an integrated science approach to enhance understanding of hydrological and ecological processes across scales.*

Some of you will be aware that the IHP-IAEA held the above-mentioned workshop to produce a strategy for encouraging a more integrated scientific approach across the IHP to strengthen our collaboration with the IAEA through JIHP (Joint International Isotopes in Hydrology Programme) and HELP (Hydrology for the Environment, Life and Policy). Rather than repeat what is the output document from the meeting, I refer you to Annex 1 of the document which states the aims, objectives and programme of the meeting. Annex II provides a list of participants which because of stringent budgetary constraints limited us to draw upon experts mostly from Europe. The meeting also recognized that a certain level of basic infrastructure for implementing field studies would be necessary to achieve some of the longer term objectives but that this should not exclude the participation of scientists from developing countries. The meeting also recognized that funding for the field component will have to come from extra-budgetary resources, national programmes, etc and not from either UNESCO nor the IAEA. In the short term the meeting also recognized the need for a structured series of workshops/symposia. In that regard the International Council for Science (ICSU) Scientific Committee on the Protection of the Environment (SCOPE) would be interested in participating and share funding resources where there are mutual interests connected with water quality.

The attached report indicates on page 2 the two main areas identified as being:

- 1) Water Quality processes
- 2) Hydrological and Ecological processes connected with Extreme Events (Floods, Low Flows)

The IHP-VI Theme Advisory Board met in Paris in late September and reviewed the status of IHP-VI. The two overarching priorities identified were firstly Extreme Events and secondly Groundwater. Water quality was also identified as an issue so there was support for the outputs from the current document. Independently the 3rd session of the World Climate Programme - Water (joint WMO-UNESCO) Steering Committee, held in Wallingford, UK, 21-23 October 2002) gave strong support to Extreme Events (as above) following my tabling of this document. At that session it was recognized that WCP-Water needs to move into the area of climatic variability impacts linked with water quality. Obviously the mobilization of contaminants is more effective during floods for example. Overall the meeting in Warsaw recognized that our current understanding of hydrological - water quality processes is relatively weak.

To: The Networks of FRIEND, ERB, Groundwater, Ecohydrology, IAEA, HELP and ICSU (SCOPE)



United Nations Educational, Scientific and Cultural Organization
Organisation des Nations Unies pour l'éducation, la science et la culture

cc: Participants of the IHP-IAEA Expert Workshop, Warsaw (addressees shown on attached list)

Floods in particular have become topical because of recent highly publicized events in various parts of the globe. The scientific literature is, however, voluminous on Floods and FRIEND alone has already contributed considerable material on this topic. Elsewhere UNESCO along with WMO are sponsoring the updating of the IAHS Catalogue of Floods. So it is important to look for the research gaps. One of the overarching questions that could be pitched to the scientific community is at what scale(s) do meteorological factors over-ride land use change impacts in flood generation. The groundwater representatives in Warsaw also highlighted the current lack of consideration given to the role of groundwater storage-recharge during flood-producing rain events. Moreover baseline statistical analyses of existing runoff data will always be necessary to better understand flood characteristics *a priori* to any field programme. In that context, I also refer you to the attached reports of S. Blazkova and C. Bouvier who attended the recent Floods workshop held 6-8 March 2002, at the International Conference on Flood Estimation, Berne, Switzerland with the mandate to assess new approaches for application in FRIEND. The WCP-Water meeting also suggested attention be given to probabilistic forecasting and the quantification of uncertainties when concerning extremes. I should also mention that through WCP-WATER, a CD ROM will be produced in April 2003 of worked examples based on the Detection of Trends in long term runoff data sets workshop, Wallingford, UK, December 1998.

It is now considered appropriate to widely circulate this document entitled 'Outputs from expert IHP-IAEA Workshop, Warsaw, 3-7 July 2002' in order to receive relevant comments prior to the next meeting foreseen to be held in the second quarter of 2003; Annex III lists participants to form part of the Steering Group. The main task of this Steering Group will be to review the document, take into account comments, and then plan a concrete strategy from thereon using the current Workplan detailed on page 5 of the Output document as the point of departure. We would appreciate receiving your comments by 1 February 2003 including cc to all members of the Steering group. In the meantime we would encourage you to share this document as widely as possible within your own communities and solicit comment and suggestions so that we receive as comprehensive a range of input and feedback as possible.

Yours sincerely,

Mike Bonell
Chief, Hydrological Processes and Climate Section
Division of Water Sciences