Session 6.4.1. Data Needs and Data Acquisition

Date of the session	Friday 20th March 2009
Time of the session	08:30-10:30 & 11:00-13:00(cont.) (4 hours)
Topic	**6.4. Data for All**
Main convening organizations	International Association of Hydrological Sciences (IAHS)
Contact person(s)	Arthur Askew (arthuraskew@greenmail.ch)

Short description of what the session intends to discuss and the key questions that have been identified

The aim is to raise awareness among those who manage water resources of the importance of having adequate integrated data for effective decision making and of the means by which the necessary data can be observed, identified, and obtained. At present it is clear that the water data available do not meet all of the needs of data users. The need for the regular and on-going production of quality data will be stressed.

- What data should we put in the treasure chest?
- What types of data and information are needed?
- What can each water data source learn from the others as regards concepts, sources and methods used for data collection and storage?
- How can we ensure the quality of data and the volume of data that we really need in practice?

Wider context of issues: Why is the question important to improving water challenges in the world today? And how does it relate to issues outside the water sectors?

The question of what data and information to collect and present as a basis for decision making in the water sector is vital if our decisions are to be founded on real facts and not just on hypotheses and are to take into consideration all of the many factors concerned: geophysical, economic and social. The water sector is intimately linked to a wide range of social and political issues and if these interactions are to be considered when making the relevant decisions on political and social issues, then it is important to study the interactions concerned which, in turn, requires that we have available the data and information required for us to fully understand the complexity of the issues concerned.

Previous experiences to draw on expected challenges and past lessons

Past experience is that those in high places do not pay as much attention to this subject as it deserves. For example, it was not on the agenda for the previous For a because it was not thought to be of sufficient importance or interest. It is on the agenda for the Fifth Forum "by popular demand", but it remains to be seen how much interst will be expressed in the subject of data and information at the Forum itself. As more and more regions of the world come face-to-face with water shortages, or start to realise the potential consequences for increasedc floods and droughts as a consequence of climate change, there will be an increased recognition of the need to study past records and understand more fully the complex interactions between climate and freshwater: floods and droughts.

Nevertheless it will still be a challenge, especially in these hard financial times, to obtain the necessary financial support for the data collection and storage programmes that are so sorely needed.

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Discuss the development of session questions and its role on the relevant topic	
i. Identify common issues and priority problems	a) The development of water resources and alleviation of water-related hazards have many facets and it is no easy task to identify a priori what data need to be collected, in what locations or from which groups and at what times. b) As the collection of data and information can be quite costly, it is important to make a balanced decision as to what to collect and what not to collect and store. c) New techniques for data collection are constantly being developed and it is a challenging task to decide what equipment to purchase and when to replace old systems. d) Quantity is not enough: the data must also be of good quality, but how far do we go in refining our techniques? There is a point when it is not worth the expense to increase the quality in the light of the use that will be made of the data.
ii. Discuss the future evolution of the topic, in the short-, medium-, to long-term based on changing political climates and other foreseen socio-economic /ecological factors	The collection of adequate sets of data and information is expected to become increasingly important as demand rises to equal and then surpass supply. The challenge of predicting the impact of climate change on water resources will also call for ever more regional and global sets of water data. Therefore, in the medium-term, we can expect a marked increase in the demand for data, matched - hopefully - by an increase in the investment in data collection, storage and exchange programmes. The long-term will undoubtedly bring new, more precise and effective, data collection systems which will lead to a far greater integration of data collection and dissemination systems into the operational practice of all water-related agencies.
Differing perspectives: (Regional, stakeholder, others…)	
There are and will remain quite different perspectives on this question, for example: - geophysical scientists will always call for the most accurate and precise data because on this depends progress with our understanding of the process that control the hydrological cycle. - engineers will be more interested in having sufficient quantities of data on which to base their estimates of water supplies or flood magnitudes. - those who operate water projects and flood forecasting systems will stress the importance of collecting the data and information in real-time and transmitting them rapidly to users, even at the expense of data quality. - regional and national government agencies will need a broad range of information linked to socio-economic indictors on which to base development and investment planning. - climatologists will call for global sets of data with which to improve the water components of their global models.	
List of speakers and timing	
08:30-09:30 A key speaker will introduce the overall subject of Topic 6.4 09:30-10:00 An introduction to Session 6.4.1 given by Dr Arthur Askew 10:00-10:30 Preliminary questions 10:30-11:00 Coffee break 11:00-12:00 Panel discussion 12:00-13:00 Open debate/discussion	

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Panellists
Ian Cluckie (UK)
LeHuu Ti, ESCAP(Thailand)
Basanta Shrestha, ICIMOD (Nepal)
Pradeep Aggarwal, IAEA (Austria)
Paul West (USA)
Stéphane Simonet, WWC (France)
Sara Ahmed, GWA (India)
Ünal Sorman (Turkey)
1 from instrument manufacturers
1 from WHO