

TOPIC 6.2

WATER SCIENCE AND TECHNOLOGY: APPROPRIATE AND INNOVATIVE SOLUTIONS FOR THE 21ST CENTURY

1 Affirmation

1.1 If we are to make real progress in the search for improved water management, environmental protection and mitigation of the impact of natural hazards, we will need not only new ideas, new scientific understanding, new methods and new technology we also need new approach for a dialogue between researcher decision makers and stakeholders – in short: appropriate and innovative communication pathways, developments and solutions.

1.2 Innovation and dialogue in its broadest sense is at the heart of all that will be discussed in Istanbul and therefore it is important to be clear that here we are talking about scientific research and technological development, in particular the physical, chemical and biological sciences. The social, economic and political sciences have a major role to play in water management, but they are dealt with under many other topics. Therefore it is necessary to foster an interdisciplinary dialogue between researchers and decision makers together with stakeholders

1.3 Scientific research and development can be undertaken in response to demands and needs expressed by society, government agencies or industry. In this sense they facilitate progress by making it possible for the ideas – the dreams – of others to be put into practice. Very often, however, they are the origin of the new ideas and then they lead progress by offering possibilities that had not even been considered before. Hence, a substantial part of resources for research need to be allocated to curiosity - driven research.

1.4 In both cases, scientific research and technological development are essential to progress in the management of the world's water cycle and its associated resources and this should be recognized and taken into account in the discussions leading up to and during the Fifth Forum and, hopefully, be reflected in the outcome of the Forum.

2 Aims

This topic may be addressed on the basis of four specific aims, namely:

- (a) To identify and bring to the attention of all involved in the Forum the vital role played by scientific research and technological development and to have this reflected, as appropriate, in the outcome of the Forum.
- (b) To provide an opportunity for the providers of scientific and technical innovation to meet with their current and potential “user community” so as to learn what their needs and priorities are for the future, to develop research plans how to respond to these needs, including space for the above-mentioned curiosity - driven research.

- (c) To provide a framework within which the agencies and individuals involved in science and technology will be able to co-ordinate their preparations for the Forum, in particular so as to facilitate (a) and (b) above.
- (d) To bring those involved in science and technology together before and during the Forum so as to encourage, not only a sense of joint interest and responsibility, but also to facilitate personal contacts across national and disciplinary divides leading to joint actions and partnerships extending well beyond the Forum.
- (e) to identify a scientific/technology topic where improved co-operation is required (but not discuss “the need for improved cooperation” which is fully accepted)
They also need to fund the follow up ! The alternative is to focus on successful but detailed models of cooperation which are generic-in that they can be transferred to a range of topics. XEROCHORE could be a model that could be presented-I am sure the European Commission would be very supportive.

3 Partners

3.1 This topic will benefit from the involvement of partners, using the broad sense of the word, who are drawn from all Government Ministries, companies, organizations and individuals with expertise in science and technology. These would include the majority of those who will be renting space at the exhibition, as well as a major proportion of those who will be organizing sessions during the Forum itself.

3.2 A subset of these partners will need to be identified as a Planning Group for the theme. These might include one representative each from:

- (a) A Government Ministry of Public Works
- (b) A Government Ministry of Science and Technology
- (c) A research institute; a university
- (d) An engineering construction company
- (e) A manufacturing company
- (f) An international non-governmental scientific organization
- (g) An international non-governmental technical organization

3.3 Either (a) or (b) above might come from Turkey and (f) and (g) might be nominated through IWALC; the remaining four representatives would come from four different countries, preferably from regions other than those covered by (a) and (b).

4 Activities at the Forum

4.1 The three sessions that will be organized under this topic will need to follow a clear and logical pattern and should address the three questions chosen from among those submitted in early 2008 – see 5 below. They should not just present examples of scientific innovation, but should encourage dialogue between research workers, the users of research results and those who manage and fund research work in the water sector.

4.2 This same pattern could be used to plan other events – for example demonstrations of technology in use presented at a location that is accessible, not only to those attending the Forum, but also to the exhibitors and possibly also the general public.

4.3 In order to facilitate the contacts referred to under 2(c) above, a meeting area could be set aside for the S&T community, with some light refreshments, possibly within or next to the exhibition area so as to encourage those concerned to withdraw, temporarily, from the hurly-burly of the Forum and get to know each other and “do business” together.

4.4 In addition to the above, there would be the usual distribution of publications and flyers, the issuing of press releases and the preparation of reports summarizing the outcome of the Forum in respect to S&T.

5 Questions to be addressed

At the time of drafting this paper, a total of questions had been submitted for consideration under this topic. Of these, it is proposed to accept the following as providing the basis for the three sessions referred to under 4.1 above:

A Large scale versus small scale and advanced versus traditional techniques: what are the scientific and technical factors to consider when making a choice?
or How can we make an objective choice among competing technical solutions?

B What new scientific and technological developments are available to monitor and improve water quality and how can these be transferred for use in technically less-advanced communities? or Are current science and technology adequate to solve water quality problems?

C How can adequate financial and other support be obtained for the research and development needed to solve water problems? or How can support be obtained for R & D?

6 Outcomes

The outcomes from this topic should reflect the aims as set out under 2 above and be the result of the activities recorded under 4. It is too early to be more precise as to what form they would take in each case but very specific decisions on this will need to be taken well in advance of the Forum.

7 Preparatory work needed

The following is a provisional list of actions that will need to be undertaken over the next twelve months:

(a) Identification of the partners who might be invited to become involved in the topic, with agreement as to how this broad community might best be contacted and involved.

(b) Nomination and meeting of the Planning Group referred to under 3 above.

(c) Possibly the adoption of a slogan and a logo for the topic. A poor first suggestion for the slogan is “science & technology serving water development”.

(c) All of the work that will need to be done in advance of the Forum both by individual partners and as a joint effort. Details of this will have to be worked out as plans develop, but should be clearly identified; including which person or institution is responsible for the action.

8 Sources of funding

8.1 Each partner would be expected to meet the expenses associated with their participation in any of the activities. Some of the facilities required for common use (e.g. the large booth and meeting area referred to under 4.4 and 4.5 above) might be paid for by a consortium of private companies whose generosity would be publicly recognized.

8.2 Some of those involved in the overall planning of the topic, and some of the joint expenses of its implementation, may need to be covered by the WWC or the Turkish hosts as part of their Forum expenses.