Theme	3. Managing and protecting water resources and their supply systems to meet human and environmental needs.
Topic	3.1. Basin management and transboundary water cooperation
Main Question	How can cooperation over transboundary water resources be carried out more efficiently and effectively?
Related sub- questions	Question 1: Why are shared water resources important? Why internationally shared aquifers are important? What are the most effective mechanisms to prevent disputes over water from becoming conflicts? What mechanisms could turn a dispute into an avenue for cooperation?
	Question 2: What is the quality of transboundary water cooperation? How are good and bad defined? Why is the 1997 UN Watercourses Convention not yet ratified? Why there is a need for legal agreements on transboundary aquifer management?
	Question 3: How can agreements/institutions be made to be more robust and effective?
	Question 4: How is political will increased to allow for governments to address the issue of basin and transboundary water management? And how do financial investments influence cooperation?
<u>General</u> <u>introduction</u>	Even though, according to the literature, the mythical "water war" has never occurred, this does not mean that there are not low-level disputes happening every day around the world over transboundary water resources. An example of this can be seen in India and Pakistan using the conflict resolution mechanisms of the Indus Waters Treaty to resolve the Baglihar Dam dispute over the past several years. With global changes such as population growth, urbanization, land-use changes and climate change increasing the possibility of disputes and, potentially, conflicts over shared (surface or groundwater) resources, an examination of what mechanisms are effective as dispute and conflict prevention, must be made. Some of these are already apparent such as conflict resolution mechanisms, data-sharing, legal instruments, governance and public participation, and are being implemented in transboundary river basins and aquifers around the world. The promotion of cooperation should also be explored. Transboundary water resources provide a range of opportunities for cooperation, as some call "benefit-sharing", that is not only based on the water itself, but the other benefits water brings to the negotiating table. What is it about shared (surface or groundwater) that can make it a catalyst for cooperation and development rather than a pathway towards conflict?
	Resulting Question 1: Why are shared water resources important? Why internationally shared aquifers are important? What are the most effective mechanisms to prevent disputes over water from becoming conflicts? What mechanisms could turn a dispute into an avenue for cooperation?
	Cooperation over transboundary waters has been the norm rather than the exception throughout history, where there have been thousands of agreements, both bilateral and multilateral, signed over shared water resources. Some nations, like those in the case of the Danube River, have been cooperating for several hundred years. Others as recent as 2007. Even though all transboundary basins,

and especially aquifers, do not have adequate cooperation mechanisms, there have been sufficient instances of transboundary water cooperation to look critically at the results.

There has been very little evaluation of the quality of the cooperation between nations over their shared water. Is all cooperation good? What is bad cooperation? Is bad cooperation better than none at all? Who benefits from this cooperation? These are a few of the many questions that can be asked about the interactions that take place between nations of their transboundary water.

An example of examining the quality of cooperation is the 1997 UN Watercourses Convention. Over a decade has passed and the convention still has yet to go into force, because only 16 of the 35 necessary country ratifications have taken place. Why is this the case? Does this mean it is bad cooperation? A critical look at the UN Watercourses Convention, as well as the future Transboundary Aquifer Convention, may be necessary to help develop transboundary water policies that will be more sustainable and resilient as global changes increasingly have an impact on society and the planet.

Aquifer systems, due to their partial isolation from surface impacts, on the whole contain excellent quality water. In many countries these systems have been fully evaluated and extensively used for municipal and other demands. Such resources represent a substantial hidden global capital that still needs prudent management. Competition for visible transboundary surface waters, based on available international law and hydraulic engineering, is evident in all continents. However the hidden nature of transboundary groundwater and lack of legal frameworks invites misunderstandings by many policy makers. Not surprisingly therefore, transboundary

aquifer management is still in its infancy, since its evaluation is difficult, suffering from a lack of institutional will and finance to collect the necessary information. Although there are fairly reliable estimates of the resources of rivers shared by two or more countries, no such estimates exist for transboundary aquifers.

Resulting Question 2: What is the quality of transboundary water cooperation? How are good and bad defined? Why is the 1997 UN Watercourses Convention not yet ratified? Why there is a need for legal agreements on transboundary aquifer management?

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As stated above, agreements abound between nations over their transboundary waters. Institutions, or transboundary basin organizations, are not as frequent. However, when speaking about transboundary aquifers, both agreements and institutions either do not exist or are not adequate to confront the complex issues that are arising in today's world of globalization.

Current mounting concerns for the quality of groundwater resources and for the sustainability of withdrawal rates of groundwater reserves take on a distinctive political connotation when groundwater flows across an international boundary of States and become, as a result, a 'shared' resource. Sensitivities about sovereignty, the diversity of legal and socio-political systems and different national agendas make for a complex scenario. This is compounded by the fact that none of the internal groundwater laws and institutions of the sharing countries, can provide rules of governance acceptable to all. Consequently such rules must be found elsewhere, i.e., in treaties and agreements between or among the concerned sovereign States or, failing such treaties and agreements, in the consistent practice of States.

In light of the global changes that will impact the planet in the next several decades, what can be done to improve on existing agreements and institutions so they are more resilient looking towards the future? Agreements that were signed into force

decades ago are often not prepared for the changes that the world will see in terms of population growth and climate change.

Resulting Question 3: How can agreements/institutions be made to be more robust and effective?

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While the media has often taken up writing and sensationalizing a future "water war", and the Secretary-General of the United Nations, Ban Ki-moon recently stated how water is a priority for the United Nations, governments, both national and local, still have yet to acknowledge the importance of water, and, more specifically, (transboundary) basin management. Water is tied to development, energy, food and agriculture, industry, religion, recreation, trade, etc., yet its importance has not equated to sound policies for its conservation and use. Water is still polluted and used inefficiently.

The World Water Forum itself is a venue where attempts are made to bring water to the attention of politicians. To what extent this is successful is not clear, but one thing is: water is still not "high politics". Both issues of water and sanitation and transboundary water management are crucial for both local and national governments as (1) both are interconnected to one another and (2) nations' and cities' well-beings depend on them.

Resulting Question 4: How is political will increased to allow for governments to address the issue of basin and transboundary water management?

(Types of) Organizations to be involved in topic consultations

Associations:

International Agencies: UNESCO, UNDP, UNEP, UN-Water, Economic Commissions (UNECE, UNESCWA),, RBOs; FAO, OAS, UNILC, OSS, IGRAC (International Groundwater Resources Assessment Centre) (under the auspices of UNESCO/WMO)

BGR - UNESCO-WHYMAP

INWEB – Database on Transboundary Aquifers of the Balkans (under the auspices of UNESCO)

National Governments: Ministries of Foreign Affairs, Ministries of Environment , Petersberg Process

Professional Associations: UPTW, TIWA, COMPASS, IAH, IAHS

Research Institutions: SIWI, Woodrow Wilson Center, BICC; Regional Centre for Shared Aquifers in Africa (Tripoli, Lybia).

Multilateral donors: World Bank, IADB, AFDB, ADB; GEF: International Waters

Environmental agencies / NGOs: WWF, Green Cross, INBO

Related national organisations, NGOs and Local civil society: Various universities

Means for the Preparation Process

- Website(s) used as a channel for communication flow: INBO Website, UNESCO PCCP website;
- 2. UNESCO governing bodies meetings;
- 3. 3rd Conference on Managing Shared Aquifer Resources in Africa,25 27 May 2008, Tripoli, Libya (UNESCO, OSS, GWA)
- 4. Fourth International Symposium on Transboundary Waters Management, 15-18 October 2008, Thessaloniki, Greece (INWEB, UNESCO)
- 5. UNESCO PCCP case study process on the Ostua Metapan aquifer;

	6. UNESCO PCCP case study process on the the mono river:7. Courses on transboundary water cooperation of PCCP in the Middle East and Latin America;
Proposals of sessions already in process of thinking:	 session on the draft Articles of the Law of Transboundary Aquifers, organized by UNESCO and UNILC session on the Transboundary Aquifers inventory of The Americas, organized by UNESCO-OAS-GEF session on the Transboundary Aquifers inventory of Africa, organized by UNESCO and African partners transboundary river basins experiences (Cases of NBA Niger Bain Authority, OMVS Senegal Basin organisation, OMVG Gambia river organisation, VRA Volta basin authority, Lake Chad basin. At sub-regional we have the experiences of ECOWAS water resources and the west Africa water partnership promoting IWRM in the countries (UNESCO Accra) At national and local levels the experiences of Burkina and particulary experiences of Ghana where IWRM is implemented at national river basins since few years (UNESCO Accra) Session on the PCCP case study to present the results of the cooperation process in collaboration with representatives of governments involved.
Process of paper and session development:	 Draft 1 of topic scoping paper to be sent to key institutions for comments Improved draft to be placed on website Improved draft with comments received to be discussed at the February coordinators meeting to: Agree on key questions Agree on the topic document so that it can be placed on the Forum web- site Agree on key stakeholders to take part in the development of the topic Agree on consultation process: relevant meetings with key stakeholders Agree on the process and actors to develop the forum session.