A new International Hydro diplomacy; from water cooperation to comprehensive collaboration(*)

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ABSTRACT

A New International Hydro-diplomacy; need for a shift from water cooperation to collaboration in the fields of both ‘Water and Energy’ simultaneously.

This article demonstrates why ‘A New Hydro-diplomacy; from "cooperation" to "collaboration"in the fields of both ‘Water and Energy’ simultaneously is essential. It is also focused on why a new paradigm in transboundary hydro-political interactions in the 21st Century is needed?

The introduction of cooperation through both ‘Water and Energy’ can change the nature of international relations from a zero-sum game based on resource grasps to a platform of mutually beneficial interrelations.

This study analyses the possible implications of "collaboration" in the fields of both ‘Water and Energy’ simultaneously in water scarce but oil/gas rich areas aftermath of the new world order and new geopolitics.

The paper concludes by emphasizing the need for a revised analytical approach for analysis of hydro-politics relations in light of the development of international collaboration in the areas of both Water and Energy issues in relationship with transboundary hydro-politics

Keywords: Hydro-politics, Transboundary Water, Hydro-Diplomacy, Hydro stability, Water and Energy

Introduction

Past experiences showed that there was a strong need to comprehensive collaboration in the transboundary river basin’s co-riparian beyond the present weak cooperation level. Why can’t oil and gas reserves be used as a key interdependency factor to develop stronger collaboration between riparian countries lying on the same transboundary rivers basins?

There are many countries which has rich oil and gas resources and at the same time they receive water from rivers which comes from energy poor neighboring countries.

There are several examples for such geographies and geopolitical situations;

For instance:

a) Gas and oil rich Uzbekistan meets its water need from rivers which flow from Kyrgyzstan and Tajikistan (Amu Darya). Although Uzbekistan receives the water gratis, it shows no intention applying any beneficial terms as exporting its oil and gas to its two neighboring countries.

b) The same goes for Iraq and Turkey but on another modality (Tigris and Euphrates Basin)
c) Sudan-Egypt and Ethiopia, Kenya, Uganda (Nile Basin)
d) Nigeria and Niger-Mali (Senegal River Basin)
e) Republic of South Africa and Namibia (Orange River Basin)

Present Situation

There were about 50 independent countries at the beginning of the 20th Century. But the number of countries has grown rapidly since the last 25 years. It reached as many 195 countries when entering this Millennium. This brought some new transboundary river basins and hydro political interactions like in Southern Caucasus, Central Asia, Balkans and Eastern Europe.

Beyond growing number of independent countries, new fossil energy resources (natural gas, shale gas), new energy geopolitics, new hydrocarbon rich areas (including Arctic) have inadvertently affected Hydro-geopolitics of the new world.

Almost half of the world population lives in trans-boundary watersheds. However, the ambiguities related to water and the things to be done have not yet been sufficiently addressed in commercial or political agreements.

As Conca(2013) indicated in his paper that “current efforts to support international cooperation on transboundary waters are characterized by a relative underinvestment in the diplomatic pillar as compared with the techno-managerial pillar of cooperation”.

Present situation is more complex than that in the last century. Because the Water, Energy and Food Security nexus shows how various ways water is being used affect each other, and also highlights the need for a coherent policy.

Climate change has repeatedly been described as a ‘threat multiplier’ for unstable regions around the globe. The impact of climate change is likely to be felt primarily through the water cycle reinforcing many worrying trends regarding water scarcity, salinisation, alteration of seasonal flow patterns and flood risks.

- 158 of the world's 263 international river basins, plus transboundary aquifer systems lack any type of cooperative management framework.
- Most water is shared across nations and people. A total of 145 nations hold territory within, and 21 countries lie entirely within international basins. (Water for Life” 2005-2015).
- Of the world’s 263 international basins, 158 lack any cooperative management framework according to the UNDP Transboundary Waters Programme.
- Over the last 60 years, governments have signed more than 300 international water agreements, while there have only been 37 cases of reported conflict between states over water. (Water for Life, 2005-2015).
- The existing agreements are mostly bilateral, at times not sufficiently effective to promote integrated water resources management.
- Only 116 out of 276 transboundary basins have ever had a river basin organization.
Most of the existing agreements do not include all riparians. Only 5 agreements are three lateral ones.

Issues of shared aquifers are growing increasingly important. There are about 260 transboundary groundwater basins and no agreement framework and agreement so far. Nevertheless, in a report for the US State Department, the US Director of National Intelligence noted that during the next decade water problems will contribute to instability in states important to US national security interests.

Based on an analysis of past water disputes which contributed to tensions among rivals including nuclear-armed India and Pakistan, Israel and the Palestine, and Syria and Iraq,(ICA2012), it concludes that after 2020, risks of geopolitical water conflict will likely increase. (Clapper, James R. 2013)

**Traditional “Water Conflict or Cooperation” Approach!**

Conventional term "Hydro-politics" now should encompass consideration of variety of scale, new actors, increased interdependency nexus water, energy, food, new geopolitics and new technology.

The use of transboundary water management and beneficial energy supply approach together rather than arguing only water sharing or allocation of water itself, provides by far the best scope for identifying mutually constructive collaborative actions.

The Oxford English Dictionary defines the word ‘cooperation’ as “working or acting together to the same end” for a common purpose or benefit, (Claudine Brelet 2013). Unfortunately, this process does not always take into account a "shared vision" to reach an ultimate goal. Real collaboration requires mutual dependent relationship and trust.

In the water sector, the cooperative approach is still too often based only on hydrological and climatological data, on modeling and engineering, all relying on the application of scientific and mathematical principles to practical ends, (Claudine Brelet 2013).

Concerns over transboundary water "cooperation" has to shift away from absolute water quantity to applicable benefit sharing collaboration on water and energy supply. If collaboration is essential in sustainable transboundary water management, oil and natural gas supplement in a mutually beneficial way can help built this collaboration in appropriate transboundary river basins.

Conceptualizing conflict and cooperation in a linear fashion is not a solution oriented approach. It is very hard to achieve transboundary water cooperation with normative assumptions starting from conflicted water issues. Therefore it needs a new conceptual approach. It may be productive to focus on the analyses of rapid changing which brought new areas to collaborate between basin states rather than taking discrete events related to transboundary water interactions.

**Growing Energy Demand and Transboundary Water's Energy**

Water is a main or very important energy source in some hydrocarbon poor countries. This put water resources to main energy source like gas and oil. All energy resources except for water are barely to give any direct disturbance to neighboring or riparian states in normal energy generation process. But water is the only energy source that downstream states can
directly be affected in the absence of any agreement. Therefore, even if water is an energy source, upstream riparian state is not as free as oil and gas owner states are in using water to generate energy. These circumstances, well, force a mutually beneficial energy supply agreement between energy rich downstream riparian and water rich upstream riparian countries.

Therefore in some transboundary river basins a new comprehensive collaboration paradigm should include a realistic positive interdependency on both water and energy resources to build confidence, and applicable and sustainable transboundary water management.

The persistence of water conflicts in many arid regions is not simply a matter of water shortages but rather the lack of equitable agreements and confidence. In order to achieve sustainable water security, peace and hydro stability, higher level of interdependency plays very important role to confidence building. Therefore, international collaboration in the areas of Water and Energy issues, in relationship with transboundary hydro-politics is a necessity henceforth.

*New energy geopolitics, new food geopolitics, new fossil energy resources, climate change, new natural threats, bring out the need for a new approach to International Hydro Diplomacy*

**Climate Change Pressure on Hydro Diplomacy**

Although there are several reasons for a new hydro diplomacy approach, the most basic reason forcing us to such a new approach is the climate irregularities that have already been faced in several part of the world. Climate change will contribute to dramatic alterations in the physical parameters of the water regime prevailing in many rivers. Considering the possible impacts of climate irregularities, it may be said that transboundary water management is going to face serious risks within the scope of climate irregularities.

The irregularities and uncertainty that climate change entail for many basins is a new threat for transboundary water management. If climate change were to result in conflict, it would thus probably be over water[^2]. The political risks resulting from extreme weather conditions have become apparent, for example, in the way fundamentalist forces were able to politically exploit government failures in Pakistan in aftermath of the massive floods in 2010.

In certain regions climatic variations will result in an excess of water during particular periods of the year contrasted by a deficit during others, (Jägerskog, 2013).

Unfortunately, few transboundary agreements (where and if they even exist) have been designed to compensate for increased variations as they are often restricted by a rigid definition of water allocation expressed by terms of volumes of water, not by percentages of flow which would otherwise allow for greater flexibility. Thus greater climatic variations will result in an increased pressure on, in many instances, rather weak agreements, (Falkenmark M., and Jägerskog, A., 2010).

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Therefore “immediate collaborative approach necessity” and what to be done for this change should be taken into account such international congress, symposium and forums.

**A New International Hydro-diplomacy Approach**

Transboundary waters are a pivotal but underappreciated issue in the global politics. Water management in many transboundary basins is highly politicized and has a considerable impact on conflict prevention, regional stability, and environmental peace-making and international governance. Therefore, transboundary water governance is a domain that should elicit greater attention in the foreign policy community.

There is little historical precedent for major ‘water wars’. On the contrary, shared waters have in some instances been ‘islands of cooperation’ in otherwise conflictive relationships. The 1960 Indus Waters Treaty has thus survived three wars between India and Pakistan, cooperation on the Mekong persisted throughout the Indochinese wars, and water has served a crucial means for strengthening cooperation in Southern Africa. As a consequence, the use and allocation of water in transboundary basins is both a source of tension and an opportunity to promote cooperative practices and build collaborative institutions.

**From classical cooperation to comprehensive collaboration (CC to CC)**

In some regions, the economic, political, and security dynamics of the region are sometimes closely tied to its hydropolitics. Therefore oil and gas production and their transportation security may be also related to hydro policy and hydro stability in the oil and gas rich regions.

As Therese Sjömander Magnusson indicated in her article, "We need greater understanding of how various regional forms of cooperation work outside of the water sector. We need a way of cooperation that strengthens regional integration affecting water management between countries," (Therese Sjömander Magnusson 2014).

In the cases where basin states are water rich-energy poor or/and energy (oil and gas)rich-water poor co-riparian, this can/should bring comprehensive collaboration and regional integration. A New International Hydro-diplomacy based on this collaborative approach may foster regional integration by supporting the **spill-over effect** of cooperative practices into other sectors.

Since energy security has both political and economic dimensions, it is difficult to confine energy security issues to any of the existing sectors of security, because often energy security threats have **spill-over effects** to the other sectors and in many cases other way around. Therefore as mentioned above, energy is more likely to be a super sector or cross-sect oral or inter-sect oral, because energy is a necessary precondition for other sectors, (Mikko Palonkorpi 2007).

**Water security complex**

Water security complex or in a far reaching term the hydro-political security complex, defined as “a group of states whose primary hydro-political concerns are linked together so sufficiently closely that their national hydro-politics cannot be realistically considered separate from one another”.

The development of the idea of a hydro-political security complex is derived from the work of Barry Buzan who explains the security complex as being a “set of units”.

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In these cases where basin relationships are unstable, hydro-diplomacy may be able to build on technical collaboration to facilitate stability and peace. Such collaboration can and should simultaneously be used to foster regional integration by supporting the spill-over effect of cooperative practices into other sectors, such that water may become the nucleus of more formal integration via legal rules and shared institutions, (Pohl 2014).

**In regions that are ‘securitized’**

The challenges to effective transboundary water management emerge in different forms in diverse parts of the world. In regions that are ‘securitized’ (where there is a strong focus on security issues such as military conflicts, for example the Middle East region), cooperation and advancement of cooperation beyond the water sector is arguably less likely than in regions where there are less pressing security issues( Phillips, D.J.H., M. Daoudy, J. Öjendal, S. McCaffrey and A.R. Turton. 2006). In geographical spots where a securitization is materialized due to a set of perceived and real risks and treats, possibilities to interact in a two or multi way direction with other areas such as social welfare, water related issues, civil rights etc. dramatically are reduced and can only be revitalized until one or more of the other areas other than the said “securitized” one offer useful contributions to securitization leading a way to promote its ends. So, components of hydro-political security complex can thus serve as an instrument to break off a fate that securitization poses hindering cooperation let alone collaboration. Keeping in mind that securitization of any particular area explicitly refers to ego-centralization of resources which could otherwise be an instrument of a friendship, main drivers of which cannot be easily removed considered the complexities of current globally prevalent security environment.

By the same token, it has been suggested that regional cooperation over water as a shared resource can be a recipe for wider cooperation. While this may be the case, it is clear that such an assertion shouldn't be overstretched, (Jägerskog, 2003).

Phillips and others point out that the level of securitization in a river basin is an impediment to a functionalist (cooperation leading to cooperation) approach since the preoccupation of the states will be on national security, thereby clearly limiting the room for regional perspectives, (Phillips, D.J.H., M. Daoudy, J. Öjendal, S. McCaffrey and A.R. Turton. 2006).This is clearly evident in regions with a strong security focus. This does not mean that cooperation cannot happen, but the assertion that this would almost automatically lead to wider cooperation is far-fetched.

**Power Asymmetry**

Basin politics are often compounded by power asymmetries, begging the question of how to deal with riparian hegemons. Hydro-hegemons frequently refuse to be drawn into cooperative multilateral basin for a, preferring to deal with weaker partners individually on a bilateral basis, (Pohl 2014).

The benefits of collaborative management of transboundary waters therefore cannot only be counted in the direct economic gains, but also in the benefits of conflicts avoided.

The need for and prospective benefits of hydro-diplomacy are thus on the rise, (Pohl 2014).Although shared waters have spawned conflicts, they also present diplomatic opportunities. Here the question lies under which set of coercive or persuasive conditions
could a country which possesses power asymmetry over others be led to a compromise and trade-off. To our assessment, a comprehensive mutually advantageous engagement of energy provision policy might reduce the limiting effects and consequences of securitization of transboundary water resources and increase prospective benefits of hydro-diplomacy in some appropriate regions.

**Power Structures in the Region**

Zeitoun and Mirumachi argue that it is imperative to make a thorough analysis of the power structures prior to any engagement in the support of transboundary waters management, Zeitoun, M, and N. Mirumachi (2008). It is obvious that a region cannot move towards a wider cooperation and integration without taking the power structure dynamic into account.

Main barrier before a constructive relation between the energy rich-water poor and water rich-energy poor parties which share the same basin in the role of upstream and downstream countries is that the lack of inclusive and comprehensive energy provision policy which could guaranty the provision of energy in exchange for a water. Actually the responsibility lies with both sides to hold in that while energy rich-water poor party tends to abuse the notion which implies the provision of water is a matter of basic human rights ignoring other aspects of the question, the other party- energy rich-water poor- tends to exert power asymmetry it derives solely from possessing energy. Another question can be raised as to whether finding a trade-off or compromise point is reachable by the current governing/overarching structure, mechanisms and code of law for the management of transboundary waters. Attaining or at least endeavors towards a trade-off point would serve bring both sides on somehow equal terms to built confidence to achieve higher levels of far reaching collaborative water management ends.

**Regional (Water - Energy) Security Complexes**

Since the end of Cold War, the understanding of security and the security environment of international politics has been radically changed. It is generally accepted that regional security mechanisms/ideas can create an impact on the identities and behaviors of actors. That is why regional security has turned to be an important subject for the international relations (IR).

After rapid increase in oil and natural gas dependency between co-riparian states in some transboundary river basins, these energy resources may also be used as a political weapon like water resources. This suggests that water and energy issues can involve interdependency relationships which include political aspects that can be argued as (water -energy) security threats, if not all, in some regions.

**The regional water-energy security complexes** may be formed by water-energy related interaction between two or more states in a limited geographical area, which includes a water-energy dependency relationship between the states involved and perception of this dependency as a threat (securitization).

The energy interaction includes transactions such as production (export), purchasing (import) and transit of energy. Energy dependency is politicized or securitized more easily if it is linked to other controversies or conflicts (enmity) between states and these enmity perceptions can be regarded as factors which turn dependency into a negative energy dependency. Analogous to RSCT definitions by Buzan & Wæver, also the threats arising
from energy dependencies are usually more intense between states (or regions) in close geographical proximity.

On the other hand, positive energy interdependency is likely to develop according to the rules of the energy market where the main threats are secure supply and stable price of energy as quoted above.

As Howard Chase has pointed out, in itself lack of self-sufficiency in energy is not a problem, because energy trade is the mechanism that should balance that out. But water trade mechanism wouldn't be a solution in the case of a neighboring water poor country. This difference between water and energy sources may put "a new hydro policy approach" to origin of regional security complex.

**Transboundary Energy and Water Agreements: Finding a Trade-off point**

When we consider water rich upstream and energy rich downstream countries lying on the same transboundary river basin, upstream riparian may use the transboundary waters for political pressure. On the other hand, if there is an agreement on oil or gas provision from downstream country to upstream one, the energy price may also be very effective instrument for political pressure of downstream country. But this can also link the countries with a win to win situation.

If the energy price is subsidized by energy rich co-riparian state, this will be a very concrete first step to achieve trust. But this can be only a first step and should be extended by other sectors as well as developing a mutually beneficial transboundary water agreement. Because the elites of the both receiving and supplying country know that the subsidized energy prices can be withdrawn at any point of time. This risk also requires more interdependency and mutually beneficial agreements between co-riparian states.

In fact it can be a win win situation when it is well organized.

On one hand, subsidized energy prices in turn contribute to the internal stability and dependent state is expected to take supplying country’s interests into consideration in order to secure subsidized prices – and internal stability - in the future. On the other hand, revenues from energy exports are no less important for producer countries internal stability. Should these revenues suddenly disappear, producer country may face considerable stability challenges.

In summary, both subsidized energy prices and mutually beneficial transboundary water agreement can feed each other to built confidence in the basin. This approach will exactly contribute to the stability of the basin with win-win method. A new mutually beneficial effective transboundary water management system will be one of the most important result of this process.

**Conclusion**

As water quality deteriorates and demographic and socio-economic development increases in the world, the demand for freshwater resources also increases. This trend is further aggravated by climate change. Climate irregularities and environmental changes are likely to sharpen existing and may trigger new social and political conflicts over water, in particular in regions
that lack robust institutions for cooperation for the least, and for collaboration at which we should aim.

In some certain parts of the world where there are water and energy disputes, New international hydro policy on transboundary water governance together with transboundary energy supply politics may present significant challenges and opportunities for foreign policy makers to prevent conflicts and harness opportunities for greater regional cooperation.

Various conflicts over water and interstate tensions over water issues in the Nile basin, the Middle East, and South and Central Asia and South Africa need for a comprehensive collaboration that needs trust between countries. Oil and natural gas provision politics can play very important role to built confidence. This may also create collaborative approach to transboundary water management on the basis of greater regional cooperation.

Climate change progressively became a security issue for the countries, leading to a necessary change of water policies as well as their behavior to transboundary water management. It should therefore be a priority to promote deeper cooperation, comprehensive collaboration on transboundary water management in assessing climate change and its impacts on these strategical water resources.

In fact, classical cooperation approach between co-riparian states wouldn't be enough to manage the transboundary rivers and transboundary aquifers under the effects of climate change as well as new international relationships and new geopolitics. Besides the transboundary rivers, the proper governance of transboundary aquifers requires particularly high levels of international collaboration.

Taking into account the rapid increase in water and energy needs, energy resources rich neighbors can create amicable and closer relationships among co-riparian states on transboundary river basin. This can make necessary hydro politics more effective by applying it into broader transboundary cooperation and efforts at regional economic and political levels.

Greater vision and scope in cooperation may lead to greater potential benefits. Yet to achieve such synergies by water and energy resources require dedicated political interest.

Energy provision politics in a mutually beneficial way can be a useful tool to help alleviate the negative political consequences of transboundary water governance problems, and to foster greater cooperation where possible. A beneficial oil and gas supply agreements can built mutual trust and help reduce uncertainties between co-riparian states. It may provide incentives for their realization, and help frame issues such that cooperation becomes politically more attractive than unilateral actions.

Sustainable transboundary water management need greater political and diplomatic engagement that can't be achieved only classical cooperative approach on water issues.

It requires shared vision, shared goal and unity of effort which means a real collaborative approach on the basis of new Hydro-diplomacy approach instead of tight classical cooperative one.
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