

Strategic Forezight Group





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Strategic Foresight Group

C-306, Montana, Lokhandwala Complex, Andheri West, Mumbai 400 053, India Email: info@strategicforesight.com

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# **Preface**

In the last few years, massive amount of work has been done on how trans-boundary water cooperation can be structured in the Middle East. International organisations have supported grass-root level work and training programmes for enhancing water security in the region. They have also encouraged policy work for introducing institutional measures to foster cooperation. Nevertheless, despite inter-governmental agreements, practical work on the ground and international encouragement, the governments in the Middle East have not moved to introduce trans-boundary water cooperation in a systematic way.

The lack of progress in the Middle East is primarily because the leaders do not seem to be convinced that trans-boundary water cooperation should override national interest. The discourse in the Middle East is excessively concerned with national interest and national security. Water is considered to be a sensitive issue. The discourse is primarily governed by the question of adequacy of supply for each country from its national perspective. It is concerned about potential losses of trans-boundary exchanges and agreements. Since any agreement is about give and take, the elite in the Middle East tend to worry about what they have to give and what they should take from a narrow national perspective. The Middle East is obsessed with the psychology of losses instead of the psychology of benefits.

In the Middle East, data is seen as a strategic asset, which is compromised if shared. It is primarily a question of political approach. The data of water flow and quantity is not any different in any other river basin in the world. However, what is seen as a scientific asset and used positively for the benefits of states in many other basins in Africa, Europe, North America and East Asia has become a strategic asset and protected from the eyes of the people in West Asia. This also emanates from the psychology of losses.

There are many other aspects of cooperation which are governed by self-defeating psychology in the region. It is therefore necessary to ask the question WHY the governments of the Middle East should cooperate at all and that too on an urgent basis. This paper intends to ask this question from nine different angles.

The questions in the paper are derived from a large number of conversations with policy makers, opinion makers, experts and ordinary citizens of countries in the region. They underpin concerns of the people, and particularly the opinion making elite, in the Middle East. We hope that the answers will encourage the region to reflect on realities and shift from the psychology of losses to the psychology of benefits.

Ilmas Futehally
Executive Director
Strategic Foresight Group

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# **QUESTION 1:**

# Why should water security concern the Middle East?

The Middle East is facing severe depletion of its water resources. All the main rivers and lakes are shrinking at a fast pace. The flow of Jordan River, as measured at the Dead Sea, has reduced from 1300 MCM per year in the 1960s to 100-200 MCM presently. In the lean period which lasts almost half the year, the river flow is barely 10-20 MCM.

The Yarmouk River has experienced reduction in the water flow from over 500-600 MCM a few decades ago to 50-60 MCM presently.

The surface area of the Dead Sea has shrunk from 950 square km in the 1960s to about 637 square km at present. During the same period, the Dead Sea water level has dropped from 390 metres below sea level to 420 metres below sea level. It is likely to drop further to 450 meters below sea level by 2050.

Some of the major rivers in Turkey, including Tigris, Ceyhan and Seyhan are expected to see a 50 per cent reduction in their annual average flow by 2050. In Syria, Barada River which feeds the capital city of Damascus has already turned into a stream.

In addition to reduction in the quantities of water flow, there is also decline in the availability of fresh water due to pollution and contamination.

In recent years, one more problem has threatened water security in the region – the actions of militant and terrorist organizations. ISIS, a terrorist organization, has taken control of significant parts of the Tigris and Euphrates basin. The ISIS has also demonstrated its capability and

willingness to use water as an instrument, as well as a target of violence. The Kurdistan Workers Party (PKK), as recently as July 2015, not only declared its intent to destroy dams build by Turkey but also took control of the area near Ilisu dam in the Tigris basin.

Thus, the problems of quantitative depletion, pollution, contamination and terrorist control of critical water resources have together combined to create a significant crisis in the Middle East.

This crisis has particularly affected the poor and marginalised sections of the population. As of 2015, more than 40 million people in the Middle East are hydroinsecure. They are spread unevenly across a total of 30 governorates in Iraq, Jordan, Lebanon, Syria and Turkey. Hydro-insecurity is closely linked to drought, as the water crisis is accentuated during the period of severe drought.

The vicious cycle connecting drought, extremism, gender and water produces the phenomena of internal and trans-boundary displacement. In the second half of 2015, more than 15 million people, accounting for over a tenth of the population of the region, were estimated to be displaced. While on one hand the drought and water shortage has caused some portion of the displacement phenomena, on the other hand, refugees fleeing from both natural and man-made disasters have increased the pressure on water resources in some areas.

Large scale displacement, loss of livelihood, and loss of self-esteem leads to instability, war and political turmoil. Therefore, water security is at the very core of human security and state security in the Middle East. Indeed, water security has emerged as an existential issue on its own, as well as in its close linkage with violence, displacement and instability. The Middle East urgently needs to address the question of water security because it is an extremely critical factor in determining the very existence of states and societies in the region.



# **QUESTION 2:**

Why should the countries in the Middle East cooperate with neighbouring countries instead of monopolising resources at a time of depleting water flows?

The water relations in the Middle East are highly interdependent. Israel and Occupied Palestine Territories are totally interdependent on various aquifer systems. Iraq receives more than 50 per cent of its water and Syria more than 80 per cent of its water from neighbouring countries. Jordan depends on Syria, Lebanon and Israel for its fresh water and on Saudi Arabia for a shared aquifer. With more than 50 per cent average dependency ratio, it is evident that countries in the Middle East have to cooperate with each other.

Among the 30 governorates that are hydro-insecure in the Middle East, 13 governorates are in border areas. As a result, what happens in one country has an immediate impact on the neighbouring country. Water refugees do not much care for political borders and people displaced by violence become consumers of water in the camps of the neighbouring countries where they find refuge.

In an extremely volatile environment, calculations made for national water needs are inevitably proved wrong. The Johnston Plan of the

1950s, which aimed to allocate water shares among countries of the Middle East, became redundant with declining water flows, growing population and increasing pollution. Several of the subsequent treaties for water allocation have not been honoured by the parties.

In such a volatile environment, it is not realistic to prepare a long lasting agreement on allocation of water shares. It is much more prudent to create mechanisms for cooperation for sustainable management of water resources. With high external dependency ratio, there is simply no alternative to collaborative and sustainable management of trans-boundary water resources.

The situation in the Middle East is not radically different from the situation in other parts of the world. There are more than 263 shared river basins in 148 countries. In most parts of the world, riparian countries have found ways and means to collaborate with one another to derive benefits from shared rivers, lakes and aquifers. The intensity of cooperation varies from one region to another, but the principle of cooperation has been accepted in most parts of the world. There is no logic to the Middle East remaining one of the few regions not to embrace the idea of trans-boundary water cooperation. This is specially so when the region is facing serious water crisis. Experience all over the world has proved that cooperation leads to more benefits than ignoring the reality of external dependency. Moreover, experience in many parts of the world shows that cooperation in water resources is closely linked to overall peace and stability. Indeed, any two countries engaged in active water cooperation, do not go to war for any other reason. Thus, water cooperation will not only help the Middle East to address its problem of depletion of water resources, but it will also help build comprehensive peace, stability and welfare of the people.

The examples of water cooperation between the United States and Canada, United States and Mexico and between a large number of countries in the Rhine and Danube River Basins in Europe are well known. However, water cooperation is not a prerogative only of rich and technologically advanced countries in Europe and North America. Countries sharing water resources in Asia, Africa and Latin America, which have faced economic and political problems not too different from the Middle East, have also used trans-boundary water cooperation to improve their prospects of development and peace. With a few ideas on how water cooperation was fostered in other parts of the world, and a lot of determination, the Middle East can transform water from a source of crisis into an instrument of comprehensive peace.



# **QUESTION 3:**

Why can we hope for cooperation between countries in the Middle East when they are involved in major intrastate and interstate conflicts?

All over the world, there are many examples of political discord between riparian countries, which affect initial prospects of cooperation. However, when political leaders demonstrate maturity, they can enter into water cooperation agreements. In the early 1960s, Senegal and Guinea had serious differences regarding the legacy of colonialism, approach towards African Union, and other matters. However in 1963, President Senghor of Senegal went to Conakry in Guinea to present the idea of the joint development of the Senegal River by Guinea, Mali, Mauretania and Senegal. It took political courage by one leader to push the agenda of trans-boundary water cooperation that was taking into consideration the interest of all the riparian countries. Similarly today, if one head of state from the Middle East makes a bold visit to neighbouring countries specifically to promote joint management of water resources; it should be possible to initiate a process of cooperation.

In the case of the Senegal River Basin, following the plan presented by President Senghor in 1963, it took 10 years of negotiations at the ministerial and official level to form the Senegal River Basin Organization (OMVS). Initially, Guinea joined as an observer country; officially joining as a full-fledged member only in 2006. Today, OMVS has emerged as the most advanced form of trans-boundary water cooperation with joint management of dams and other infrastructure.

Much like leaders of West Africa, courageous decisions by the leaders of Botswana, Angola and Namibia lead to trans-boundary water cooperation. In the 1990s, Angola, Botswana and Namibia established the Okavango River Basin Commission. They decided to do this even though Angola was suffering a violent internal conflict, due to which the head waters of the basin were not going to be available for any use. A strong commitment of top political leaders to foster water cooperation in the long term interest of the people, ignoring practical issues relevant in the short term, made the Okavango Commission possible.

In the 1980s, Central American countries were involved in active conflict, much worse than what you see in the Middle East today. At the time, one leader, President Oscar Arias of Costa Rica convinced other heads of states to take a long term view and sign a peace agreement known as Esquipolas II, and an economic cooperation framework known as Trifino Plan. As soon as this window of opportunity was created, the countries in Central America initiated talks for joint management of shared waters, especially to control pollution and floods. Their success in creating water cooperation agreements led to more agreements on peace and economic cooperation. Similar processes took place in South America, despite conflicts between Ecuador and Peru, as well as Venezuela and Colombia.

In Asia, Laos, Thailand, Cambodia and Vietnam experienced some of the most brutal conflicts in the 1960s, 1970s and 1980s, but this did not stop the leaders from establishing an interim Mekong Committee under the sponsorship of the United Nations. In 1977, when the Commission was created, only Laos, Thailand and Vietnam could join and carry out small projects. Cambodia joined the Commission in 1991 after the civil war.

The horrible conflicts faced by countries in Asia, Africa and Latin America, are relevant to recall when we look at the severe strife in some of the countries in the Middle East today. Just as in the examples from Asia, Africa and Latin America, the initiative of one head of state in the Middle East can change the paradigm in the region, despite pessimism expressed by critics about the impossibility of cooperation due to internal and interstate conflicts.



Moreover, in the recent past, countries in the Middle East have demonstrated that they can foster cooperation when their leaders take political initiative. In June 2010, Heads of Governments of Turkey, Jordan, Lebanon and Syria came together to establish a Quadrilateral Free Trade Area. They also extended an invitation to Iraq, which could not join immediately due to internal constitutional problems. Within six months, the free trade area in Levant made progress in opening trade, facilitating trans-boundary travel, harmonising banking standards and other aspects of trade, transit and finance at a speed rarely seen in any other part of the world. However, the free trade area collapsed after February 2011 following internal and interstate conflict in the region. The fact that the Heads of States not only agreed on trade and transit cooperation, but also changed laws, procedures and other requirements to improve the situation on the ground shows they can do it again, if they demonstrate political will.

Since 2012, even though interstate cooperation in the Middle East has been suspended, a community supporting regional water cooperation has come into existence and is growing at a fast pace. The Blue Peace Community, as it is known, comprises of a few hundred policy makers and opinion makers including ministers, government officials, legislators and media leaders. The Community has been interacting through meetings, conferences, media programmes and other channels, and proposing various ideas for fostering regional water cooperation. The Community has created a soft infrastructure of dialogue which will be extremely useful for any political leader who decides to take a lead in fostering cooperation, especially on water.



# **QUESTION 4:**

# Why should the Middle East have an institution for water cooperation, instead of an ad-hoc effort lead by the Heads of States?

The Heads of States are necessary to initiate the process. However they need to hand over the process to ministers and officials for efficient structuring, if the process has to be relevant and productive on a sustained basis. The difference between President Senghor's Conakry visit, Esquipolas Agreement in Central America and UN Interim Mekong Committee on the one hand and the Quadrilateral Free Trade Area of the Levant on the other hand was that in the former cases, Heads of States immediately instructed ministers and officials to craft institutional agreements, whereas in the latter case, no effort was made for institutionalisation. As soon as the priorities of the leaders changed, due to political turmoil post 2011, regional cooperation in Levant collapsed. In the case of Central America, South America, West Africa, Southern Africa and South East Asia, institutional arrangements provided a cushion against short term interest, priorities and whims of Heads of Governments. The following are examples of institutional evolution in different parts of the world which may provide ideas for the Middle East:

In West Africa, since the first meeting of the Heads of States in 1962 on regional cooperation, a series of high level ministerial meetings and conventions followed and proved essential for the formation of the OMVS.

The cooperation was strengthened through binding conventions. With the help of these conventions the organizational structure of OMVS was defined, which helped the countries to explore the water resources of the Senegal River for their mutual benefit.

Few of the key conventions are as follows:

- a. Convention related to the general development of the Senegal River Basin on July 26, 1963 in Bamako:
- ♦ The convention called for the creation of 'Inter-State Committee' for undertaking the study of the Senegal River.
- This was put forth by the Senegalese President Senghor who was convinced that the common project of a 'barrage at Gouina' (now the Manantali dam) on the Senegal River would benefit all. He convinced the other riparian countries of the benefits from a 'purely technical and functionally orientated group concerned with regulating the flow of the Senegal River for purposes of navigation, irrigation, and the generation of electricity.'

b.Labé Convention signed on March 24, 1968:

- Following several ministerial meetings, the Labé Convention signed on March 24, 1968 created the Organization of Boundary States of the Senegal River (OERS, Organisation des Etats Riverains du Senegal).
- c. Creation of Senegal River Basin Organization, 1972:
- Even after Guinea decided to back out of the cooperation, the three riparian countries of the Senegal River went on to form the Organization for the development of the Senegal River (Organisation Pour la Mise en Valeur du Fleuve Senegal OMVS) in 1972. This convention defined the competencies and the mandate of the organization for the development of the Senegal River.
- At the same time another convention was adopted by Mali, Mauritania and Senegal on the statute of the Senegal River on 11 March 1972. The convention declared the Senegal River an international river and guaranteed navigation freedom and water use equality.

Mekong River Commission had several background studies which eventually helped in establishing a strong legal foundation for the organization. Before the organization was formed, the US Bureau of Reclamation presented a report on planning and development in the lower Mekong basin in 1955-56. The report insisted on the joint management of the River and the four riparian countries



expressed their mutual interest in doing so. The Mekong Committee was established in 1957 after a strong draft statute for a "Coordination Committee" designed by the legal experts of the United Nations Economic Commission for Asia and the Far East (ECAFE). This draft was convened by the riparian states as "Preparatory Commission" in the same year in Bangkok. The Commission legally established the Committee for Coordination of Investigations of the Lower Mekong (Mekong Committee) after a thorough study, modification and an endorsement of statute. It constituted representatives of the four lower riparians, with input and support from the United Nations. It was determined that the decisions would be taken unanimously and the representatives of each riparian country would attend the meetings. Both the riparian countries and the international partners had estimated the huge potential of the river and the importance of a wellmanaged river basin. As a result, even before beginning the actual work, various in-depth studies were undertaken by the international partners in cooperation with the riparian states in order to understand the actual potential of the river. By undertaking such studies, a certain form of cooperation was established. Four such studies were influential in driving the Committee's policy:

- ♦ An ECAFE report on Development of Water Resources in the Lower Mekong Basin (ECAFE 1957).
- As per the suggestions of the Wheeler Mission, data gathering was made the first priority throughout the basin before commencing any construction on the river. The Wheeler program was later adopted as Mekong Committee's first five-year plan. (1957).
- ♦ The United Nations' Technical Assistance Administration (UN/TAA) report Programme of Studies and Investigations for Comprehensive Development, Lower Mekong River Basin (UN 1958).
- A Ford Foundation-sponsored Report on Economic and Social Aspects of Lower Mekong Development. This study, also known as White Report, broadened the scope of Mekong Committee investigation beyond technical and engineering emphasis of the previous reports. It suggested getting a tributary development report before launching the large infrastructure projects on the Mekong River.

The Mekong Committee adapted itself to the situation in the region and kept the cooperation over the lower Mekong River alive even during the time of intense conflicts. When Cambodia left the organization in 1974, due to the lack of a representative government, the Mekong Committee became a three-member "Interim Mekong Committee for Co-ordination of Investigations of the Lower Mekong Basin". In the meanwhile, the implementation of small-scale projects deepened their knowledge about the basin's natural and social systems. These



projects provided experiences in different sectors of water development especially in tributary projects. Later, in 1991 when Cambodia was in a position to re-join the organization, amendments in the constitution of the organization were made and the re-joining was made possible.

A larger regional cooperation was a precursor to the cooperation in the Okavango Basin as explained in the answer to the previous question. The regional cooperation started with the goals of achieving economic independence through Southern Africa Development Community (SADC) and was later expanded to the water sector.

Such cooperation is possible in the Middle East as well. The regional integration initiatives like Quadrilateral Economic Cooperation Framework, the 2010 agreement to establish a single visa zone between Jordan, Lebanon, Syria and Turkey, to facilitate the movement of people and the Levant Business Forum, which was introduced in 2010-11, could be revived and used as a platform to have more pronounced cooperation. Once the countries have a solid platform through which they can cooperate, it will become easier to achieve integrated management of the limited water resources in the region.

Another way of strengthening the regional cooperation is to adopt reforms in the national legislature like in the case of The Central American Integration System-Action Plan for Integrated Management of Water Resources (PACADIRH) and Amazon Cooperation Treaty Organization (ACTO). In Central America the integrated management of the transboundary waters was brought about mainly by legal and institutional reforms. These reforms have been brought about by:

- ♦ Strengthening the scope and powers of the environmental authority.
- Modernising government structures and establishing a regulatory framework to support greater involvement of the private sector.
- ♦ Reducing the size of government.

In addition, the leaders of the Central American countries established a favourable environment for cooperation through various other regional integration tools such as:

- ♦ CRRH (Regional Committee for Water Resources, 1960)
- CAPRE (Coordinating Committee for Institutions of coordinator institutions drinking water and sanitation in Central America and Dominican Republic, 1979)
- ♦ CEAC (Central American Electric Interconnection System, 1985)



- ♦ CEPREDENAC (Coordination Centre for Prevention of Natural Disasters in Central America, 1987)
- ♦ CCAD (Central Commission for Development and the Environment, 1989)
- ♦ CAC (Central American Agriculture Council, 1991).

These organizations have played a key role in establishing a favourable environment for the standardisation and harmonisation of laws, standards, policies and strategies. As a result, it is safe to say that the cooperation in sectors such as trade, agriculture and electricity can be conducive to achieve active cooperation for the management of shared water resources.

ACTO as a regional legal instrument facilitates cooperation in many areas of sustainable development. Strong institutional founding of ACTO suggests that clearly defined mandate of an organization eventually leads to more comprehensive development. The Amazonian Parliament (PARLAMAZ), "a permanent body composed of the representatives from the democratically elected Parliaments of the Member States" was established in 1989. Today the Parliament works closely with ACTO to facilitate political and parliamentarian exchange among the countries of Amazon Basin. The PARLAMAZ is strongly institutionalized with its Assembly, the Board of Directors, the Executive Secretariat, and the Standing Committees covering a wide range of development issues. The ACTO reinforced the strong institutional foundation of the ACT in 1995.

The establishment of the Secretariat in 2002 has helped ACTO undertake various initiatives to further the cooperation and monitor and implement regional projects. It also stipulates development of a strategic plan, which will provide parameters for effective implementation of various projects across the Amazon Basin. Member countries consider the Secretariat as a main channel of communication amongst them, as well as with the international organizations. ACTO also helps the countries to deal with the complex boundary matters of the Amazonian region with the most common criteria of physical (e.g. basin), ecological (e.g. forest coverage) and/or of other types (e.g. political–administrative) of development.

The lesson learnt here is that solid institutional mechanisms are needed to achieve sustainable development in a coordinated manner. Strong political will combined with strong legal foundations can ensure sustainable cooperation. The well-defined organizational structures have brought in a certain harmony in the cooperation over the shared water resources. The examples mentioned of River Basin Organizations also demonstrate that a considerable amount of time was invested over the years in reaching the current level of cooperation. However the reality of increasing water scarcity and regional instability does not allow the Middle East that luxury of time. Concrete measures need to be taken at the earliest to tackle the water issues before it is too late.

# **QUESTION 5:**

Why should the example of cooperation in trade and transit in the Middle East give hope for cooperation in water, since water is considered a highly sensitive issue?

In 2010, Turkey, Syria, Jordan and Lebanon established the "Close Neighbors Economic and Trade Association Council" (CNETAC) to create a free-trade and visa free area. The Council was based on the already existing bilateral agreements on free trade and visa exemption. The existence of such bilateral arrangements and practices is said to have provided a firm foundation to launch enhanced forms of cooperation on issues that were of interest to the parties. While the Council functioned only till 2011, there is much to learn from this impressive feat accomplished by the countries in the region to form a mechanism which attempted towards an integration arrangement similar to the EU. Most importantly, through this agreement, the countries were able to set aside their apprehensions regarding the topics falling within the ambit of 'sensitive issue' or state security and were able to cooperate on the same. Visa exemption for example is considered a highly sensitive matter by most nations as it can make it possible for terrorists and extremists to cross borders. This highly sensitive visa exemption was not only included in the 2010 agreement, but was implemented through bilateral arrangements even earlier.

The most interesting aspect of the Council was that the countries agreed to have ministers in charge of other issues such as energy, agriculture, health, internal affairs, water and environment, also participate in the Council when required. Anticipating that cooperation would evolve to other areas of mutual interest, the countries also agreed to provide for a change in composition of the Council. This shows that apart from economic integration, the countries were looking at integration and co-operation in a holistic manner, which extended beyond the confines of trade and commerce and also beyond the perceptions that restricted co-operation on sensitive matters.

A similar trend of achieving water cooperation through broader regional integration was observed in Southern Africa with the Southern African Development Cooperation Conference (SADCC). The SADCC was formed mainly as a reaction to the apartheid regime in South Africa. It aimed to reduce economic dependence on South Africa through building economic and particularly infrastructural security in the region. Cooperation was largely characterised by crisis response.

The SADCC gradually brought water cooperation within its ambit and now it has become one of the major forces in the region promoting the same. Even before the SADCC water protocol formally came into existence, the member states of SADC had bilateral or trilateral cooperation over Transboundary Rivers. Much like what currently exists between the countries in the Middle East. SADCC was able to promote a basin wide multilateral cooperation within these countries.

What the Middle East can learn from such initiatives is that regional cooperation, in economic or any other field, can eventually lead to joint management of its limited water resources. Or alternatively, if the countries use water cooperation as a starting point, then cooperation can be expanded to other sectors of development. Keeping this in mind, the cooperation initiatives that were introduced in the Middle East in 2010-11 in trade and transit sectors should be revived now or at least some concrete steps need to be taken in that direction.

It cannot be ignored however that one of the major impediments to cooperation in the Middle East is the issue of state security and water is often viewed as a sensitive issue. Hence it has not been possible to even form a mechanism of regional water governance. However, perhaps revisiting the formation of the EU would be helpful. The EU as it exists today is the result of the efforts of six governments in 1952 to establish a body that would help to achieve stability in the region. The initial product was the formation of the European Coal and Steel Community (ECSC) launched as a free trade and visa-free plan for charter members. The ECSC operated above and beyond the control of its national



governments. In other words countries were able to relinquish certain amount of control and cooperate for the greater good. Similarly, the 2010 agreement in the Middle East and the formation of the Council were the first and major steps in this direction; without a doubt it was the ECSC of the Middle East. Hence it should not be very difficult for the countries to initiate a similar process for water as well. It must be remembered that for the Middle East, water is not the 'only' sensitive issue. If Middle East countries could agree on visa free travel which by some standards is even more sensitive, it shows they are capable of overcoming sensitivities when they want.



# **QUESTION 6:**

Why should we expect a civil society initiative like the Blue Peace Community to succeed when government leaders have not been able to achieve much progress? Why should the international community play a facilitating but not intrusive role in enabling regional water cooperation in the Middle East?

International bodies, as well as civil society, have gone a long way towards helping governments in cooperating on water. For example the World Bank has been credited to have ensued water cooperation in the most difficult of circumstances such as between India and Pakistan. The countries required a neutral, non-biased body that would help them to achieve a win-win solution to their water woes. The result was the Indus Water Treaty. The treaty is especially hailed in the world for its dispute resolution mechanisms which have managed to function even when the countries went to war.

The UN Water 2013 report "Key lessons learnt on promoting water cooperation" recognises the diverse and critical role of third parties such as scientists, technicians, mediators, facilitators and all other agents in the cooperation process. These third parties contribute in multi-faceted ways such as by providing transparency, helping to recognise the benefits of joint actions, finding the balance between the aspirations and the options of each party involved, helping root discussions on technical and scientific evidence rather than on emotions or ideology and facilitating the access to finance and other resources. For example in the Euphrates-Tigris case, scientists were able to provide fresh approaches to problems that seemed to be at an impasse in deliberations among officials.

When political will is weak; it is track-two diplomacy that keeps the dialogue going. It creates conditions for a smooth transition to cooperation when political will grows strong. In the case of India and Bangladesh for example, it is important to note that the two prominent leaders, late Dr. I K Gujral on the Indian side and his Bangladeshi counterpart late S.A.M.S. Kibria were prominent members of track-two diplomacy in their respective countries, before they took public office. As a result it became incumbent upon them to take on the solutions that were provided for the Ganges treaty once they were in power.

The Middle East can certainly benefit from the involvement of neutral non state actors (such as NGOs, international bodies, etc.,) who can, as mentioned above, bring expertise, resources, a non-traditional point of view, and perseverance, which would help governments to focus and continually work towards the issues at hand, even when faced with several challenges. The Middle East has already seen the positive results brought about by third independent party involvement. Israel and Jordan for example coordinated their actions on the Jordan River through 'Picnic Table Talks', facilitated by the UN Truce Supervision Organization (UNTSO), which provided an opportunity for discussions on water coordination in spite of the absence of a peace agreement.

The burgeoning Blue Peace Community is another example which is continuously expanding in the Middle East. The Community began with a meeting in 2010



of a handful of experts committed to the issue. It has now expanded to include more than 200 policy makers, media leaders, scientists and experts. It is a great achievement that at a time when multiple conflicts have led to the breakdown of communications between stakeholders, the Blue Peace Community has emerged as a rare platform of dialogue in the region.

The Middle East has a fairly active civil society which can also facilitate regional cooperation and innovation on water. Likewise, the Middle East has leaders and visionaries actively championing the cause of water cooperation such as HRH Prince Hassan Bin Talal, who has served as the Chairman of the United Nations Secretary General's Advisory Board on Water and Sanitation (UNSGAB) and is one of the most active proponents of water cooperation both in the Middle East and in the world.

It cannot be ignored that the civil society and independent actors have helped to usher in transboundary cooperation in the Middle East. However, the role of any non-state actor can never be intrusive, but only facilitative. It is not acceptable to any government to allow any form of intrusion by a third party. A facilitation role as seen in the case of World Bank or the Blue Peace Community or the like of in depended bodies such as UN Water can however have a positive influence in the initiation of the cooperation process.



# **QUESTION 7:**

Why should the Middle East deprive itself of the benefits reaped from cooperating on water while other nations in the world have largely benefitted from it?

When countries cooperate on water, they receive several benefits which include socio-economic, political as well as environmental benefits. In fact when examined, every example of transboundary water cooperation includes countries coming together to gain certain benefits. For instance, cooperation in the Mekong Delta has been built on the foundation of perceived mutual benefits for the riparian countries which include opportunities for development, mobilizing international assistance, and promoting stability and peace in the sub region.

Further, real and sustainable cooperation can only be achieved if the parties enter the process on a voluntary basis, which can be achieved when all parties see the benefits of cooperation. For example in the case of the Senegal River, the riparian nations agreed to share the development costs and benefits accrued from the jointly-operated common infrastructure by using a burden-sharing formula. In the La Plata negotiations, the focus of discussions was shifted to development projects rather than water

allocation as having discussions focused on the creation of benefits, as well as their distribution turned out to be much more constructive for the riparians. This way they could avoid the deadlock from the focus of discussions on historical rights and water allocations. It is to be noted that initially the parties did have fierce disputes over water allocation issues. However, as they learnt to focus more on the positive aspect of cooperation i.e the benefits, the duration of such discussions and conflicts was short.

In fact one of the work areas of the UNECE at present is to quantify the benefits of water cooperation because they believe that the benefits assessment can help countries realize the 'potential value of cooperation'. Basin wide management of water by all riparians can result in benefits from the river such as an increase in the quality, the available quantity, as well as the economic productivity of river flows. This can yield, inter alia, more food, power, and navigational opportunities, while also sustaining the environment. Thus the most obvious gains that result from the cooperative management of shared waters are economic.

It has been observed that factors such as political, economic and geographical interdependencies can trigger conflicts between states. However, due to the benefits derived from cooperation, the issues seem to be resolved in a cooperative manner by all parties. Lake Victoria Basin for example, shared by four states, suffered from serious transboundary environmental and water resource governance problems. These serious environmental problems triggered cooperation between the nations rather than conflict. The Middle East can surely reap similar benefits which range from ushering peace and security in the region to ensuring socio-economic development. The Middle East must utilize this opportunity of cooperating on water which has helped other nations in the world to not only develop but also maintain peace in the region.



# **QUESTION 8:**

Why is it beneficial for the Middle East to have a formalised process of collection and exchange of data system as seen in other basins in the world?

According to the United Nations, information derived from 'well-organized measurement networks and monitoring programmes' are essential to accurately assess water resources and the problems associated with the same. Such an assessment is required to make informed decisions and policy formulation at the local, national and transboundary levels. Moreover, comparable information is imperative in order for countries to cooperate on basin management. There is therefore no doubt that decision-making requires harmonized (if not standardized) data generated from 'compatible assessment methods' and 'data management systems as well as uniform reporting procedures'.

The exchange of information including on hydropower, navigation and irrigation, extreme events such as floods and droughts, as well as on accidental pollution and infrastructure projects that could significantly affect downstream countries is vital for trust building among riparian countries. For example, information sharing was one of the key elements that led to the signing of the Columbia River Treaty (CRT) between the

United States and Canada. During negotiation on the CRT, information on the river was continually exchanged through an International Joint Commission that acted as a neutral third party and undertook engineering studies on behalf of both parties.

The key factors of water resource monitoring and data collection include quantity, quality and sectoral usage. Most importantly, at a transboundary level, governments must have clear and open communication and comparable data. U unless there is enough critical data on the quantity, quality of the river as well as the demographic needs in general, it is difficult to begin a dialogue and work towards specific quantitative goals. Furthermore, the paucity of crucial basin wide information without the sharing of qualitative and quantitative data on the river, makes it is challenging for countries to address humanitarian emergencies such as floods and droughts.

Hence, it is important to establish a formalised process of data collection and exchange between countries in the Middle East. Examples of countries in the Middle East having formalised data collection include treaties between Israel and Jordan on the Jordan River, Turkey and Iran, and Syria and Iran on the Tigris-Euphrates that have clauses on data exchange. The various MOUs signed between Turkey and Syria between 2009 and 2011, as well as the decision of the Joint Technical Committee (JTC) between Turkey and Iraq in 2009 to share and exchange data on Tigris-Euphrates basin are great examples of the efforts taken by the countries in the Middle East to formalize the process of cooperation on data. There have been instance of implementation as well. It was seen that Turkey shared water flow/discharge data with Syria on daily basis, as well as monthly averages until about 2011. Turkey also shares water flow/discharge data with Iraq on a monthly basis. This sharing procedure was initiated amongst the three nations at the World Water Forum in Istanbul in March 2009.

For the Middle East, one of the biggest hurdles faced in exchanging information is the lack of trust and security concerns. However considering it has on several occasions overcome such hurdles towards data sharing, perhaps it is time the region collectively stop viewing data exchange to be a security threat. This has been seen in other parts of the world as well. In Central Asia, there have been difficulties in getting water related information from the countries sharing Syr Darya, Amur Darya and the Aral, mainly due to the lack of trust. These countries have had a chequered history of conflict and cooperation. However, with the help of external donors they were able to equip the Interstate Commission for Water Coordination of Central Asia (ICWC) to facilitate the collection and exchange of river related data. They even have sessions to discuss the 'reliability of data collected from gauging stations' on certain rivers.



**QUESTION 9:** 

# Why should the countries in the Middle East foster water cooperation with extreme urgency?

For decades, Iraq and Turkey talked about establishing confidence building measures to clear misunderstandings about data on the Tigris river flow. They signed treaties. They organised conferences. They paid lip service to the idea of cooperation, but they did not implement any of the agreements on the ground.

Finally, in May 2014, Iraqi and Turkish government officials agreed on a framework for implementing data exchange related agreements. In early June, political leaders and government officials of the two countries met in Geneva under the auspices of the Blue Peace initiative of the Strategic Foresight Group and the Government of Switzerland. They agreed on specific measures to implement the agreement. The first step was to identify one stream flow monitoring station on the border from each side and begin calibration of the data between the two. The second step was to extend this framework to two or three monitoring stations.

However, within a month, ISIS took over many strategic parts of the Tigris basin including Mosul city. The terrorist group held control over the Mosul dam for some time. Eventually, Mosul dam was freed by the Kurdistan Regional Government forces. However, Mosul city, continued to be under occupation of the terrorist group. As a result, using Mosul facilities for exchange of data with Turkey became impossible, even though the Iraq government was now agreeable. The ISIS also continued to hold its sway over other dams in the Tigris basin.

In the meanwhile, Turkey went ahead and identified Cizre Monitoring station for the purpose of exchange and calibration of data. They urged Iraq to identify a monitoring station which would not be under the control of ISIS and hence in a position to be used for data exchange. Iraq took almost a year to identify Faysh Khabour on the border as the station free of terrorist control which could be used for exchange and calibration of data. When Iraq identified this station in June 2015, it was soon found that it was not at the same level as the Turkish station at Cizre. International assistance was required to upgrade the station or a new station needed to be installed. Iraq was ready for installing a new station by August 2015.

However, in July-August 2015, PKK took control of Cizre town and the area near llisu dam in Turkey. As a result, it became impossible for Turkish officials and engineers to visit the area and the monitoring stations located within it.

For years, Iraq and Turkey were suspicious of each other and neglected opportunities for cooperation. When they were finally ready, they had lost control over strategic geographies and water installations, to violent non-state actors on their respective sides. Had there been strong cooperation between the two states, they would have consolidated the state control on the area and it would have been impossible for the non-state entities to attack. It was much easier for PKK and ISIS to gain and consolidate their positions since they found two states unwilling or lethargic for mutual cooperation. The mutual suspicion between the states on the ground of national security cost them their lands as well as their security.

There are many other examples of missed opportunities in the Middle East. Some of them related to Israel-Palestine relations. Some related to Israel-Syria relations. Some related to Turkey-Arab relations.

One dramatic case of a "too good but too late" initiative was the announcement by Syria and Turkey to build the Friendship Dam on the Orontes (Asi) River in Hatay province. Since the 1940s Syria has claimed title to the area which is under Turkish domination. Due to the political dispute, cooperation over Orontes Rivers which flows in the province was not possible. Finally, in February 2011, Heads of Government of Syria and Turkey agreed to build the Friendship Dam on the Orontes River in Hatay province with a 50-50 cost and benefit sharing ratio. The project was inaugurated amidst much fanfare. However, within a month, the Syrian uprising took place, with various terrorist groups taking over parts of the Orontes River basin. With the growing strength of non-state actors in Syria, the government



in Damascus was no longer in a position to take the project ahead. Moreover, Turkey decided to oppose the regime expecting it to fall, though it continues to survive as of 2015. Had the Friendship Dam been launched 3-4 years earlier, much of what followed would have been averted. In the absence of strong state to state cooperation between Syria and Turkey, which the Friendship Dam could have commenced, anti-state violent groups were able to establish themselves, unleashing a reign of violence and terror.

In each case where the states initiated water cooperation after prolonged mutual suspicion, the act of cooperating came too late. In each case, the winners were violent non-state actors. The failure to act urgently has led to the loss of official state authority, security of people, and development opportunities for the benefit of forces of violence, destruction, chaos and despair.

Failure to act urgently on water cooperation has little to do with water cooperation. It has more to do with the existence of states and peace and prosperity of people. If such opportunities arise in future, there is no option but to act promptly as if there were no time to wait until tomorrow. The choice before the states of the Middle East is between the urgency of water cooperation and the risk of their own disintegration.



# **About Strategic Foresight Group**

Strategic Foresight Group (SFG) is a think - tank engaged in crafting new policy concepts that enable decision makers to prepare for a future in uncertain times. Founded in 2002 to create new forms of intellectual capital, our body of work today encompasses over 50 countries, across four continents. SFG has published over 30 indepth research reports in English with some translations in Arabic and Spanish. We currently work within three areas of focus: 1. Water Diplomacy 2. Peace, Conflict and Terrorism 3.Global Foresight.

SFG analysis and recommendations have been discussed in the United Nations, UK House of Lords, House of Commons, Indian Parliament, European Parliament, Alliance of Civilization, World Bank, World Economic Forum (Davos), and quoted in over 2000 newspapers and media sources. Several Heads of Government, Cabinet Ministers and Members of Parliament have participated in SFG activities.

SFG is known for pioneering the concept of Blue Peace to transform water from a source of crisis to an instrument of peace and cooperation. It has worked in the Middle East, Africa, Eastern and Western Himalayan rivers basins in Asia to craft the Blue Peace approach. These efforts have involved the participation of Cabinet Ministers, Members of Parliament, heads of water authorities and experts from the three continents and defined sustainable and collaborative solutions to the transboundary water issues. In its 2015 report, Water Cooperation Quotient, Strategic Foresight Group has proposed a unique formula to predict the probability of war on the basis of water and peace equation.

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