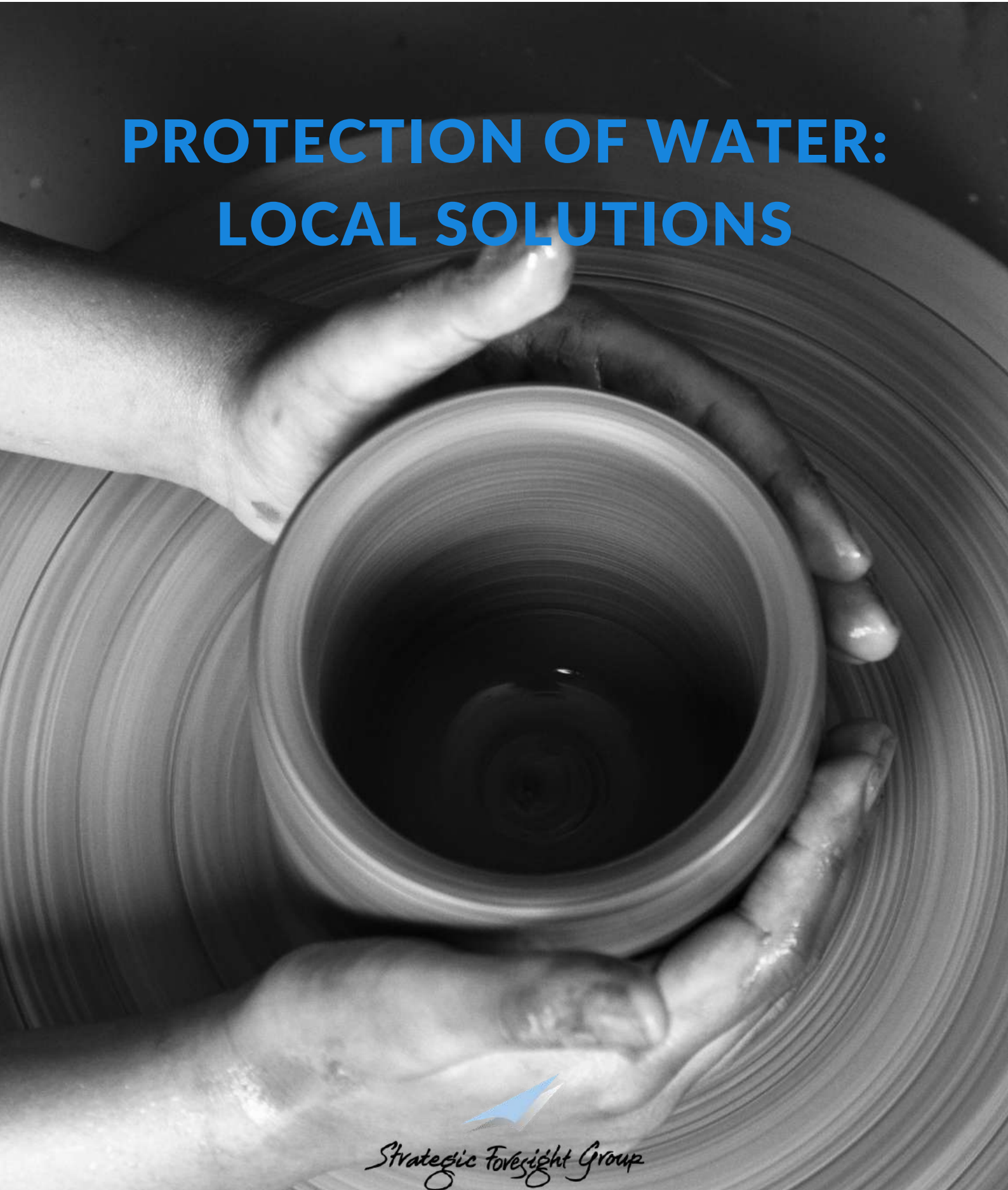


BLUE PEACE BULLETIN

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PROTECTION OF WATER: LOCAL SOLUTIONS





The Global High Level Panel on Water and Peace called for protection of water resources and infrastructure from violent conflicts and terrorist acts. In this volume, we examine traditional conflict resolution methods that have been used to solve local water conflicts.

LOCAL SOLUTIONS

Introduction

Changing rainfall patterns and rising temperatures are causing droughts and drying up water bodies in various parts of the world. Limited access to water has increased localised conflicts, ranging from disputes between people, to ethnic clashes, clashes amongst pastoralists and farmers and clashes between people residing in and around border areas of countries sharing water resources.

Although, some of these conflicts currently exist only within one country, there is a threat of these conflicts spreading towards neighbouring countries or turning into international-level disputes. In the case of Africa, the localised pastoral clashes have become more severe, spreading along the borders and into Kenya, Nigeria, Sudan, Mali and Ethiopia, resulting in the deaths of at least 1,500 people between 2012 and 2019. The United Nations Economic Commission for Africa has indicated that herders are involved in most conflicts in Africa and stated that the clashes are only going to keep on increasing due to the declining rainfall in the region. This serves as a cautionary precedent to the international community that there is a probability of localised disputes escalating into major violent conflicts.

There is also a real danger of the lack of availability of water in certain regions being used as a tool by terror groups to establish a foothold. For instance, in Yemen, the Al-Qaeda in the Arabian Peninsula (AQAP) gained popularity amongst the Yemenis by

providing water to villagers and helping them dig wells and install other vital water infrastructure. The terror group Islamic State of Iraq and Syria (ISIS or Daesh) also took advantage of the drought situation to gain control in Iraq. What started as problems between residents of a country caused by drought, turned into an armed conflict against a major terrorist organization in both Iraq and Syria, causing many countries to get involved in containing the conflict by jointly forming the “Global Coalition against Daesh”. Countries such as the US spent billions of dollars to defeat ISIS and the cost of reconstruction of Iraq alone is estimated to cost \$88 billion.



With the advent of conflicts, various forms of conflict resolution methods have been created in different countries, right from traditional means of resolving disputes through the assistance of village elders and local leaders, to more formal means such as signing of water-sharing agreements. It is imperative to analyse the positive impact of traditional conflict resolutions mechanisms in order to understand the manner in which similar local solutions can be adopted to prevent or curb other localised disputes.

There have been instances where people have had faith in traditional means of conflict resolution over water related disputes as compared to established international practices. Provided below are some of the reasons that such traditional means of conflict resolution may be favoured:

- Strong tribal or community leaders given a position of power amongst the people and trusted to resolve water related conflicts;
- Traditional methods are often in an informal setting and less intimidating to people;
- These methods could also be more cost effective than other more formal means of conflict-resolution;
- Minimal governmental control in some areas, which could be due to limited accessibility in the region or due to lack of trust towards government authorities.

Some countries have also adopted localised measures to manage water sharing, thereby pre-emptively avoiding occurrence of disputes over access to water. Other countries have set up organizations such as Water Users Associations (WUAs) to operate and maintain water resources in a particular region, some of which also actively resolve water related conflicts in their area of control.

This bulletin explores traditional means of conflict-resolution that have been successful in resolving localised conflicts over water. Furthermore, it describes certain unresolved water related conflicts that could potentially be resolved using more local-level forms of conflict resolution.



Traditional Conflict-Resolution Mechanisms

Various reasons may have contributed to the rise of localised conflicts in countries, including mismanagement of water resources, rise in water pollution and over-usage of water in agricultural activities. Many of these localised conflicts have been resolved; either completely or to a large extent through traditional means.

Mirab System

In Afghanistan, 88% of the total irrigated area is still handled through informal systems of irrigation which are traditionally developed and managed locally. These irrigation systems are monitored and administered by traditional water masters called “Mirabs”. The “Mirabs” are locals appointed by the landowners through the system of shura (the village or community gatherings). The Mirabs possess knowledge about local water rights and have the capacity to enforce these rights on the people. Mirabs are usually responsible for water allocation and distribution for irrigation from the rivers and canals in the region and also handle disputes related to the water. Based on the area of control, there could be one mirab (with some assistants) or two or maximum three mirabs.

In 2011, the Ali Abad Canal located in Kunduz, close to the Afghanistan-Tajikistan border, was a seasonal source of violent conflict between the upstream and downstream communities consisting of Afghans, Tajiks, Uzbeks and Aimaqs. The conflict was

essentially over the scarcity of water in the region caused due to poor water management systems which enabled farmers from the upstream communities to consume more water. There was also some disagreement between the communities over the election of two Mirabs, one from the upstream region and another from the downstream region, but this dispute was resolved by the local government department by recognizing one as the Mirab and the other as the assistant Mirab. Thereafter, the Mirabs resolved the conflict using their traditional methods to manage the water system of the Ali Abad Canal.

Gadaa System

In the Oromia region of Ethiopia, which borders Kenya and Somalia, there have been constant clashes between clans and ethnic groups over access to water, especially from the Awash River. The Awash River, which flows mostly in Ethiopia and into Djibouti, is part of one of the 12 river basins of Ethiopia. These clashes in the Oromia region are mainly between Garri tribe from Somalia and the Boran from Ethiopia and Kenya. The basin region is used for farming activities and as pastoral land. The frequency of the clashes in the Oromia region increased in the 1990s and thereafter; and was made even worse over time due to severe drought, resulting in the deaths of hundreds of people. One of the main reasons for the conflicts in the region was the large-scale irrigation schemes along the river. These water-related conflicts were resolved through the traditional “gadaa” system. Under this system, male leaders are appointed to assume responsibilities over economic, political, military and social issues in the region. These gadaa leaders are elected for a period of 8 years on the basis of their wisdom, bravery, health and physical fitness. In the Oromia region, under Boran tradition, the gadaas are

also in charge of natural resources including water management and resolving conflicts. The gadaas oversee the distribution of resources and settle conflicts by making laws which must be respected by all the members of the tribe in the region. These traditional conflict resolution mechanisms have been known to quickly resolve any disputes between the communities in the Oromia region.

Water Users Associations

The conflict over access to water between the people residing in the northern region of Yemen is another example of a localised conflict. Since Yemen has no rivers flowing through it, the main sources of water are rain-water and groundwater. Conflicts in rural areas over access to water have led to nearly 4,000 people being killed each year, as per reports from 2015. Due to the on-going conflict in Yemen, more updated numbers on the water-related conflicts are presently unavailable. However, UNICEF has reported that, as of 2019, almost 19.3 million Yemenis do not have access to clean water. To regulate the accessibility to water in certain regions of Yemen, the locals have established Water Users Associations (WUAs). The Food and Agriculture Organization of the United Nations (FAO) has assisted local Yemenis to establish WUAs in the Sanaa province. These WUAs are mainly in-charge of regulating water consumption amongst the people.

Even prior to the involvement of the FAO, a WUA called Bled Agustan was instrumental in handling a violent conflict in 2011 over the sharing of water from a dam that was to be built by the government in the Sanaa region.

Similarly, in the Mkoji sub-catchment in southwest Tanzania, water scarcity has led to conflicts between the upstream and downstream residents of the Rufiji River. The decline of the Usangu wetlands and drying up of the Great Ruaha River in the catchment resulted in more dependence on the Rufiji River. The conflicts have worsened over the years due to an increase in irrigation activities in the upper and middle parts of the catchment region. However, to curb the rise of conflicts in the Mkoji sub-catchment, WUAs were set up. Reports have stated that since the establishment of the WUAs in the region, water-related conflicts have decreased significantly. The WUAs, which were set up under the River Basin Water Boards of Tanzania, were made in-charge of maintaining water infrastructure, and scheduling the distribution of water. The WUAs also helped with crop selection, plantation and management of irrigation activities in the sub-catchment, thereby reducing conflicts.

Unresolved Localised Conflicts

There are currently some local conflicts which could potentially be resolved using more traditional means of conflict-resolution





rather than formal methods. This section explores few examples of unresolved conflicts where local methods, involving the people, could possibly yield results in resolving the disputes.

Many countries in Africa witness cross-border pastoral conflicts. Conflicts over water in the pastoralists' communities are a recurring event, especially among pastoralists living along the borders of Sudan, Kenya, Ethiopia, Mali and Uganda. Water scarcity has increased the frequency of these clashes in the Sahel countries since severe droughts have led to over-concentration of pastoralists in a few areas. In June 2019 alone, there were ethnic clashes in Mali and Nigeria which resulted in the deaths of 38 and 8 people respectively. Although, there were traditional methods in place to control such conflicts, those methods are failing due to lack of respect towards traditional conflict-resolution mechanisms and the use of modern weaponry between the pastoralists. The governments of these countries have not been very successful in curbing the conflicts, leading to thousands of deaths and large amounts of live-stock loss. The governments could work with local leaders to strengthen existing traditional conflict-resolution methods to end these violent conflicts.

In South East Asia, the Salween River, shared between China, Thailand and Myanmar, has been a frequent source of conflict between the ethnic Karen people on the Myanmar-China border and the Myanmar army. The Karen community, comprising around six million people, have had clashes with the army for over 70 years as they believe the army has been invading their territory. The clashes over the Salween River increased when Myanmar and Thailand proposed to build the Hat Gyi dam on river which is proposed to provide 1,300 megawatts of electricity to Thailand. The Karen people and NGO's have been opposing the project as it will lead to flooding in their lands

destroy the rich biodiversity in the region and also destroy the habitat of some globally endangered species. Complete disregard of the rights of Karen people and the biodiversity in the region have turned water into a driver of conflict. These clashes could potentially be resolved through local-level discussions between the Myanmar government and the Karen people.

Even in Central Asia there have been frequent clashes between the people living near the border of Kyrgyzstan and Tajikistan over access to water from the Syr Darya and Amu Darya Rivers. The conflict has been with regards to the Fergana Valley, which is located near the contested borders shared between Kyrgyzstan, Uzbekistan and Tajikistan. The Valley is home to almost a quarter of Central Asia's population due to its high agricultural productivity; though, not all the land in the Fergana Valley is equally fertile. Overuse of water by the upstream communities has had a major impact on the availability of water towards the downstream people. Furthermore, the World Bank has also stated that half of Kyrgyzstan could be affected by desertification by the end of the century, as the region experiences some of the most intense levels of warming on the planet. This rise in temperature has also led to the shrinking of the Syr Darya and Amu Darya Rivers. The border between Kyrgyzstan and Uzbekistan are well guarded, hence preventing disputes over water from turning into violent conflicts. However, Kyrgyzstan's and Tajikistan share an open border in the region, leading to regular conflicts among the people. There were clashes in March 2019 between residents on the Kyrgyzstan-Tajikistan border over failure to coordinate shared use of basic resources, such as irrigation water from rivers running through the area. Representatives from the governments of Kyrgyzstan, Tajikistan and

Uzbekistan regularly meet to discuss international water management, but so far have not found practical solutions to end the conflict. Involvement of locals from the Fergana Valley in the talks with the government representatives could assist in finding a solution for improved usage of the available water in the region from the two rivers.

Recommendations

There is a need to strengthen traditional forms of conflict-resolution, especially in regions where there is a strong sense of community. These traditional mechanisms can be used at least to curb localised conflicts. Furthermore, the governments of the conflict-ridden countries or non-governmental organizations/international organizations working in the region could collaborate with local community leaders to formulate agreements between the clashing parties. This method proved successful in South Sudan when the Marial Bai agreement was signed in 2016 to end clashes between the pastoralists and farmers in the Bahr el Ghazal region. The agreement provides rules on how to resolve migration related conflicts, procedures for seeking permission to move cattle and compensation for destruction of crops or livestock.

Although, traditional conflict-resolution methods may have some disadvantages such as the fact that a lot of these are verbal agreements negotiated by the community leaders between clashing parties, there is still a strong faith in the various systems in different regions. Since these mechanisms are rooted in the tradition of people, they cannot be ignored.

Furthermore, some countries have also adopted local level water management systems that could pre-emptively resolve or even stop conflicts from occurring over access to water. Systems such as the “Pani Panchayat System” in India, the “River Chiefs” in China (see Box), the WUAs in Jordan and the “AQUACOL” in Colombia are grass-root level systems that are successfully managing the water resources and related problems in these countries. These forms of local community based water organizations could be utilised in managing transboundary water resources through exchange of knowledge and data between the organizations.

River Chiefs of China

In China, there is a risk of water scarcity. As of 2018, China faced a shortfall of around 200 billion cubic meters of water annually. One of the major issues threatening the water resources in China is water pollution, affecting around 85% of urban waterways and 80% of tested groundwater. Although there are presently no known localised water conflicts in China, the government has taken a pre-emptive measure by appointing “river chiefs”. River chiefs are appointed at four levels, namely provincial, urban, county and township levels, for the **rivers** and lakes in China. These river chiefs are in charge of managing and protecting their assigned river or lake. By July 2018, around 300,000 officials had been appointed as river chiefs at various levels around China. So far, the river chiefs have been enlisted with the duty of ensuring that there is a reduction in the pollution levels in the rivers of China. However, this system could be expanded to provide river chiefs with the power to supervise water sharing, thereby curtailing water related conflicts.



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