Water as a Source of Conflict: Indian Context

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Introduction

Everything originated in the water and everything is sustained by water" said Goethe and it holds true in absolute sense. Water by virtue of its multifarious uses is one of the fundamental gifts of nature. Its availability greatly influences the sustenance of life, prosperity, development potential and health status of humans. When world population was limited, its bountiful supplies seemed endlessly renewable. This however, is no longer possible since the exponential growth rates of human population, industries and farms have already reduced the availability of water to below its minimum per capita daily requirement of about 23 litres1.

The magnitude of the problem lies in the fact that only three per cent of world's water is fresh, of which, approximately 77.7 per cent is locked in polar icecaps and glaciers and is not available for human use. 22 per cent of freshwater is ground water2. In the last 70 years, the global population has trebled, while the water consumption has increased six fold due to industrial development and growing irrigation requirements. Supplies have also grown manifold to keep pace with the demand through exploitation of surface and groundwater. The result is that ground water resources are over-exploited leading to ground water scarcity. Surface water resources are over-exploited in many basins and are fast depleting due to siltation. Fresh water supplies are increasingly coming under threat of population from industrial effluents and municipal wastes.

The problem of water and its related management is global. There is no such thing as managing water for a single purpose; all water management is multi-objective and based on navigating competing interests. Within a nation, these interests include domestic users, agriculturalists, hydropower generators, recreators and environmentalists; any two of which are regularly at odds and the chances of finding mutually acceptable solutions drop exponentially as more stakeholders are involved. Add international boundaries, and the chances decrease exponentially yet again. The scarcity of water in the countries leads to intense political pressures, often referred to as 'water stresses'. As per water scholars, by 2050 it is likely that two-third of the world population would be living in areas facing water stress conditions3.

Many Asian countries are beginning to experience moderate to severe water shortages brought on by the simultaneous effects of agricultural growth, industrialisation and urbanisation. Several countries in the region, including Indonesia and Papua New Guinea, have experienced droughts of such severity that they have caused food shortages and have threatened the long-term food supply. Further, climate change and environmental degradation in the form of shrinking forests and swamps may produce even more erratic weather and result in similar crises. Another concern in the region is growing competition over shared water resources.

In the entire gambit of water shortage, the Indian Sub Continent is becoming the focal point. Estimate of the future population indicates that this region is expected to add 570 million in India, 200 million in Pakistan, and 130 million in Bangladesh over the next 50 years, hence water stress and water scarcity are and will be confronted by countries of this Sub Continent4. Due to its location, size and contiguous borders with other countries of the region, it is India, in its capacity as both upper and lower riparian state which is facing depletion of water resources. In fact, India is identified as a country where water scarcity is expected to grow in the coming decades. The dawn of 21st century projects gloomy picture for future generations of India because of increasing water scarcity, which may lead to water crisis.

India's Water Crisis

India, which relished its past fame as water prosperous country, today is moving towards becoming a water stressed nation due to rapid population upsurge and unequal distribution. The stress on water resources is also the result of a multitude of factors such as climate change and changing lifestyles that have increased the need for freshwater and intense competition among agriculture, industry and the domestic sector that is pushing the groundwater table deeper. India's water problem and disputes are galore. Be it with the neighboring countries; inter state dispute or localised issues, India is neck deep battling the menace. India's water crisis can be broadly classified into three categories namely domestic, sub national & national level.

At Domestic Level. The main issue confronting India is non availability of clean drinking water, lack of adequate sanitation, water borne diseases and disastrous effects of flash floods. This is a severe security issue of human sufferings as large number of people die each year from water related diseases, inadequate sanitation and flash floods. There is ample evidence from the past that the issues like lack of clean fresh water and settlement of displaced people due to water projects have led to occasionally intense political instability including small scale acute violence .

At Sub- National Level. Since Independence numerous inter-state river-water disputes have erupted. India's inter-state water dispute is so spread out that there is hardly any state which is not affected directly or indirectly by water dispute. Moving down North to South, Jammu and Kashmir, Haryana, Punjab and Rajasthan are at crossroad over sharing of the Ravi-Beas water; water problem exists between Delhi, Haryana and Uttar Pradesh over sharing of Yamuna River; Gujarat and Madhya Pradesh have water dispute over water sharing of Narmada water. The Krishna-Godavari water dispute among Maharashtra, Karnataka, Andhra Pradesh (AP), Madhya Pradesh (MP) and Orissa over utilisation of untapped surplus water resurfaces every monsoon. The Cauvery dispute between Karnataka, Tamil Nadu and Kerala relates to the re-sharing of waters that are already being fully

utilised. And lastly the proposed interlinking of rivers in future if executed will further bring few more states into the ambit of water dispute. As water woes are increasing even the settled/ partially settled disputes will resurface as and when states find it difficult to meet their water requirements within the resources initially allotted. Since rivers cross state boundaries, disputes are inevitable. The Inter-State Water Disputes Act of 1956 was legislated to deal with conflicts, and included provisions for the establishment of tribunals to adjudicate where direct negotiations have failed. However, states have sometimes refused to accept the decisions of tribunals, thereby nullifying the arbitration. Significantly, the courts have also been ignored on occasion. Finally, the centre has sometimes intervened directly as well, but in the most intractable cases, such as the sharing of the Ravi-Beas waters among Haryana, Jammu and Kashmir, Rajasthan and Punjab, central intervention, too, has been unsuccessful. While these flash points can and do occur at the sub-national level, the most common security issue is both subtle and more pervasive. As water quality and/ or quantity degrade over time within the local setting, the effect on the stability of a region can be unsettling.

At National Level. Conflict over freshwater has strained India's relation with almost all its neighbours. India -Pakistan dispute over sharing of Indus water was resolved after World Bank brokered a deal between India and Pakistan in the form of Indus Water Treaty, 1960. But, despite a well spelt out treaty, Pakistan has always objected to the river projects undertaken by India, and always eyes with suspicion the outcome of the same. The bone of contention between India and Bangladesh is the Farakka Barrage and the diversion of Ganges water upstream of Farakka in order to maintain Bhagirathi navigable. This has in turn, adversely affected environment, agriculture, industries, fisheries etc directly or indirectly for the people of Bangladesh. Ironically, many of those displaced in Bangladesh have found refuge in India. With Nepal the issues of 'Water inundation' and embankments for flood control along Indo-Nepal border have become irritants in the relation between the two countries. The recent Kosy floods are a pointer in this direction. It would not be too much out of context if Sethusamudram project is considered as one of the water dispute as it has all the potential to become a future flash point between India and Sri Lanka.

If water geopolitics were to spur interstate tensions through reduced water flows to neighboring states, then this will be a new era of water conflicts. No country could influence that direction more than China, which controls the Tibetan plateau — the source of most major rivers of Asia5. Its river waters are a lifeline to the world's two most-populous countries - China and India - as well as to other neighbouring nations. China, in its blockage diplomacy is planning to divert the flow of River Brahmaputra, towards China's Northeast. This South-to-North Water Diversion Project of China is billed by some of the experts as the largest hydrological alteration attempts in the world. This indicates China's greater design to use water as a strategic weapon. The net consequence on India will be a man made disaster and in the process starve 100 million people in India. If 50 per cent of the river water which flows through the centre of India's Northeastern state of Assam is taken out, the river will become a seasonal ditch. The impact on India and Bangladesh will be tremendous. Assam and part of Bangladesh would lose the capability to grow food. One hundred million people in India. A wave of 100 million homeless people moving towards India would overwhelm it. India would surely move to prevent this from happening, and a military confrontation would begin. And this confrontation could be far bigger than the present Sino-Indian territorial dispute.

Water and Conflict

Water scarcity is a major source of concern across the world. Examples are plenty, from China to Bolivia to Thailand and India where diversion of rivers, privation and pricing has resulted in conflicts6. Many water scholars now speculate that the greatest scarcity in the 21st century will be of water – not of oil or fossil fuels. The dramatic rise in the demand for water across the world and the related water disputes is a serious reminder that water crisis is becoming a highly emotive issue.

For water, state and national boundaries are not an issue instead, it ignores them and even evades institutional classification and eludes legal generalisation. Hence the sovereignty of trans-boundary water is a serious issue. Secondly, water problem has become a cause of common concern to most of the countries. Piecemeal development activities like rapid rise in roads, settlement, deforestation etc and unsustainable land use practices beside the factor of climate change have greatly impacted the biodiversity of the nations, leading to internal water crisis within the countries. The water issue further gets complicated due to the alarming lack of long-term policies towards quality, quantity and management problems and understanding between and within the countries. Thus, water problems and disputes have become an issue both at sub national and national level. In the future, diminishing fresh water and dispute over water resources could lead to internal instability in many nations, and possibly even spark interstate and international conflicts. An increasingly prevalent viewpoint about water and security is best summed up by Ismail Serageldin, vice president of World Bank: "The Wars of the next century will be about water".

India and Water Conflict: Analysis

Cauvery experience has shown that there is no easy solution to sharing river waters – even when the two warring states were both riparian. Since there is no agreement on the transfer of river water from a surplus region to a deficit one, conflicts could increase thousandfold. Further, a central law to dictate water sharing between all the states from the network has the potential to precipitate new problems. This is because there is no guarantee for change in the very political climate that causes interstate disputes in the first place, despite the present river sharing agreements and authorities. Furthermore, if control is transferred to the centre then decisions might be taken under political pressure. This could also mean trouble for communities living on the banks of rivers, who could lose their rights they traditionally had over the river. There is also fear that with privatisation of water being discussed aggressively, rights over the river may shift from the hands of communities to multinational

companies. Yet another fear is that the only beneficiaries of this project could be contractors and consultants and not the water starved people of India.

Peaceful sharing of river waters becomes complex many times. conflicts in many cases become an obvious phenomena. Although fairly explicit constitutional provisions govern inter-state river waters, it is unclear whether existing mechanisms, for adjudicating interstate water disputes, are efficient. Indeed, there is a growing consensus that existing institutions have increasingly failed to generate the required outcome.

It is important to comprehend in conceptual terms the extent to which the prevalent water sharing between states and among India and its neighbours is peaceful and whether the water scarcity and population rise in India intensifies the chances for water conflicts. The compounding pressures of water and agricultural scarcity may create further tensions within the country and could lead to dangerous disputes over resources. This could manifest itself in a number of different ways, such as, directly in the form of violent conflicts over fresh water resources, or indirectly, by causing large scale migration and food shortages.

It is not only sharing of water resources which can cause social upheaval in the Country, the climatic or environmental degradation will cause another problem – that of dislocation of coastal populace to the hinterland thereby straining extant resources. While environmental degradation may cause problem of plenty due to melting of glaciers etc – in the long run it will be catastrophic.

With expert warning about India's population growth outstripping the availability of water in another 40 years leading to a major crisis ; water conflict seems to be imminent unless some drastic measures and policy decisions are taken, including harnessing of every available river and stream to its full potential.

Effects on Conduct of Military Operations

Geographic disposition of China vis-a-vis India, India with regard to Pakistan and likewise some other countries provide these states control of crucial water sources ; a potential weapon in their hand to make the adversary relent and exert pressures. Hence, conduct of military operation in such a scenario becomes water centric with both sides leveraging their operations around control of water sources. With changing concept of warfare where economies of the country are targeted to cripple the enemy rather than destruction of military might; the weapon of water control is an effective tool with riparian countries to create mayhem and achieve desired result.

While the principles of conduct of warfare may not change, military operations in a scenario of water crisis will require special consideration in terms of attainment of strategic objective(s). Some of the aspects relate to the following:-

- (a) Operations will be launched primarily to capture water sources or Headworks controlling the flow of water. It may be to release water pressures/ stresses on own side exerted by the adversary by blocking/ shutting down of source(s) of water.
- (b) Overcoming denial tactics of the enemy such as massive flooding of areas to block own advance. Targeting of scarce portable water sources, storage container, pipelines including strategic bombing of water infrastructure with an aim to create impact on the civilian population besides increasing the administrative hassles of the armed forces. Hence security of water infrastructure, from conventional as well as terrorist strike, also becomes a parameter of paramount importance.
- (c) Raising/ training Commando battalions fully equipped to carry out swift and surgical operations to capture Headworks and Water Control Points as also raising of Airborne Brigades/Divisions for sustenance of operations assumes importance.
- (d) Raising Engineer brigades fully equipped to overcome flooding schemes of the enemy and to be able to handle the stupendous upheaval likely to be created by enemy action.
- (e) Focus on filtration and purification of brackish/ contaminated water, storage containers; water discipline and management of water for sustenance of men, animal and machine will have to be factored during planning of such operation.

Besides the aspects highlighted above there are many issues affecting conduct of military operations in a water stress environment which need to be analysed and planned in detail by military planners and strategists. A thought of water crisis scenario controlled by a hostile state may alarm the policy makers but existence of such a threat and adversaries needs to be realised soon and steps taken to overcome such eventualities including an all out war.

Conclusion

The specific impact of fresh water problems on intra-state security is far more complex and less easily discerned. Water insecurity hampers economic development and contributes to a host of corrosive social behaviours that can result in violence within societies. Fresh water scarcity, often causally related with other factors, such as poverty, population growth, infrastructure problems, environmental degradation, can escalate "human security" problems into a national security issue. Water crisis can be a catalyst for large-scale migration and ethnic conflicts, which may result in decline of effective governance. Water security issues can have a destabilising effect on regional and international security as well. Spawned by globalisation, the increasing economic and political interdependence of nations ultimately means greater potential for spillover of problems. Water is increasingly viewed as a strategic resource, one that is to be protected and valued. Consequently, when one or more countries share water resources, the potential for disputes or conflicts is always present. Although no nation has yet gone to war over water, this potential scenario could unfold given the right conditions. It is therefore very important that India find an appropriate solution to deal with this menace well in time before it takes a shape of an irresolvable conflict.

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