ABSTRACT: Wars over water have long been a contested issue where the proponents of the water war thesis predict a war in the near future. Water has been viewed as vital for human existence and the decrease in the water availability coupled with an increased demand has escalated the tensions amongst the countries thereby leading to conflicts and confrontations. This paper focusing on the case of Teesta would be an attempt to analyze whether the scarcity and dependency of countries over water would virtually lead to wars or not.

Keywords: Dependency, Water Wars, Scarcity, Teesta.

I. Introduction
Wars over water have long been a contested issue where the scholars of the water war thesis claim that in the very near future the world would witness a war over waters. It is virtually contested that the importance of water would rise to such an extent that nations in order to protect their natural resources would go to the extent of waging a war against the other nation. Now what exactly is Water war? Water wars are understood as international wars between states triggered and sustained solely over issues arising over water. The concept of water wars is said to have derived from the Middle East due to its increasing demand and the way it was politically used in the region. It became more prominent with the end of the Cold War in the early 1990’s when the emergence of a new understanding of security that moved beyond purely military issues and focused on natural resources and the growing competition for them amongst the nations. (Wang, 2013)[1].
The water war rationale comprises of three principal blocks: water scarcity, water conflicts and bellicose public statements. Water scarcity is defined as either the lack of enough water (quantity) or lack of access to safe water (quality). The scarcity of water has been viewed as the reason why water is a political issue. According to Tony Turton, ‘because water is scarce and because it is essential for life, health and welfare, it has become a contested terrain and therefore a political issue’ (Jeroen Warner and Kai Wegeruch, 2010)[2]. It is scarcity of water that eventually leads to conflicts. Since majority of the nations are agricultural in nature therefore they are completely dependent upon the water for their agricultural produce thereby intensifying the conflicts. However not only scarcity and dependency even abundance of water can also lead to conflicts like floods which triggers conflicts downstream. Besides scarcity it has also been generally argued that the politicians at times through their political statements have played a major role in triggering the scope of water wars which indicates that water wars are caused by the failure of the politics and not water scarcity alone. There have been instances where the politicians regionally as well as globally while delivering their speech has made controversial statements regarding water that have triggered conflicts.
However Water, a basic necessity which has no substitute has emerged as an important factor in determining whether a country is headed towards co-operation or confrontation. This has given rise to two broad themes: Water as a source of conflict and Water as a source of peace. Every coin has two sides similarly Water can also be viewed as conflict as well as co-operation. Therefore in the following section first of all we will be looking into the arguments how water is viewed as a source of conflict where basically we will be highlighting the arguments made by the Water War thesis scholars and then we will come to the other arguments where scholars have pointed out that water can also be a source of co-operation and not just conflict.

II. Water as a source of conflict
Many scholars have viewed scarcity of water as the source of conflict. Malthus had argued that conflicts over water resources would arise with the rise in population and environmental degradation (Renveney and Maxwell, 2001)[3]. There is scarcity of water due to various factors like increased population, urbanization, industrialization, rapid economic growth and global warming. All these factors contribute to a dearth of water around the world leading to a scarcity of water everywhere. The water scarcity has increased to such an extent that today the demand for water is higher than the supply resulting in a competition amongst the countries to get hold of the water resources for fulfilling their demands. Aaron T. Wolf (1999) [4] stated that water has been a source of tension and conflict between countries around the world and it is the scarcity of water resources that has escalated these conflicts.
Water War Thesis: A Myth or A Reality?

The scholars of Water Wars have argued that the growing importance of water together with the fact that it transcends the boundaries of nation state eludes the absolute sovereignty of the respective States thereby leading to future conflicts (Zhijian Wang, 2013)[5]. Further they have argued that water war becomes vulnerable in those countries which are highly dependent upon the other nations for their water resources. This vulnerability in turn would compel them to defend their water resources thereby leading to the various developmental projects. It also means that each and every country in order to safeguard their resources (supply of water) would go for war with another country. And if every nation adopts this policy then it will virtually lead to conflicts culminating to Water Wars. However Salomi Dinar (2008)[6] has pointed out that there is conflict with regard to Transboundary water sharing not only due to water security or the unilateral actions of the upstream nations but also due to the broad nature of the International Water Laws [7] which fails to clearly define the property rights that has led to conflicts in shared water resources. On the other hand Hensel etal (2005) has argued that militarized conflict over water is more likely to occur in water scarce regions where river is placed with high degree of value like Syria and Turkey over the Euphrates basin and Syria and Israel over the Jordan. Therefore according to the Water War rationale scarcity, dependency, competition would virtually lead the nations towards conflicts thereby culminating into war. Since water is irreplaceable and is getting limited it has been a major source of conflicts amongst the nations. The first recorded water conflict was between the two Sumerian cities during the Lagash- Umma border dispute in 2,500 B.C where the disruption of water was used as a military tool. Similarly there have also been cases of conflicts over water over the Tigris- Euphrates Basin, the Nile Basin, the Mekong River Basin, the Jordan Basin or the Syr Daria and Amu Daria Basin. However it should be pointed out that barring the case of Lagash and Umma the other countries have not gone for a war over water. Therehave been conflicts but that has not resulted into a potential war.

III. Water as a source of Peace and co-operation

Water has not only been viewed as a source of conflict but also co-operation. There has been the emergence of a new debate which contradicts the rationale of the Water War thesis. It has generally been argued that even though there is domestic and international conflicts over environmental issues but these issues have been time and again resolved by negotiations and compromise and does not always lead to armed conflicts. Peter Gleick has stated that there exist a regular association between water and violence where water is viewed as a tool, victim and target of warfare and not the cause.[8] Munther Haddadin has argued that water has made hostile nations to come to terms at the negotiating table even when other issues are impending between them by elucidating the example of the Arab and Israel nations. The scholar points out that water even though it is becoming scarce and there is competition amongst the nation to get hold of water resources it cannot be viewed as a cause of war. Because even though there is competition amongst the nation over the water resources yet these nations have made an effort to come forward and initiate a negotiation and to validate it are the existence of various treaties and agreements over water sharing. There are around 145 treaties of which 124 are bilateral, 21 multilateral and 2 of the multilaterals are not signed or drafted. (Hamner and Wolf, 1998)[9] Infact there has been cases where nations having varying differences and unending issues between them have also opted for negotiation and co-operation rather than going for war when it comes to water issue. The prime example has been India and Pakistan. If we go by what the Water War thesis scholars points out then taking the case of India and Pakistan then both the countries should have gone for a war on the Indus Basin but despite having grave tensions both the countries signed the Indus Water Treaty of 1960 surviving two wars. Even a country like China which apprehends on signing any treaties with regard to water sharing has never come forward and waged a war over water. This in itself shows that countries are thinking more towards co-operation to solve their issues rather than waging war for it. Therefore countries can adopt a number of strategies whereby it can mitigate water stress and thereby the conflict.

In order to contest the Water War thesis the following section would be dealing with the case of India and Bangladesh particularly focusing on the sharing of the Teesta river which has been a thorn in the mud to see whether the Water war thesis applies in this case or not.

IV. Water wars in the light of the Teesta

India and Bangladesh are two nations who not only share cultural and strategic proximity but also a common history. The partition of India into India and Pakistan in 1947 and thereafter the emergence of Bangladesh in 1971 have created disputes between India and Bangladesh which still needs to be resolved as it has culminated into misunderstandings and resentment amongst the people of both the sides. Going by the war war thesis then both India and Bangladesh should also wage war against one another as both the countries fits in the criteria for Water Wars i.e. water scarcity, dependency, competition, transboundary water sharing. Both the countries are a part of the larger Ganga-Brahmaputra-Meghna basin and shares 54 common rivers between them. Bangladesh, being a lower riparian is highly dependent on India for the Transboundary river flows from 54 rivers[10] which has been a source of tension between the two countries.
Sharing of transboundary water issue has been a grave concern between both the countries whether it is the case of Ganges or Tipaimukh or the never ending Teesta issue. Since Bangladesh is a downstream nation therefore it is more vulnerable to any projects by upstream India.

Water scarcity is a problem that has been haunting both the countries coupled with an increased population and urbanization which has further escalated the growing demand for water supply. Further if we compare India and Bangladesh then the geographical position of Bangladesh makes it highly vulnerable as it has to depend upon the flow of waters from outside the country particularly from India. The following table highlights Bangladesh’s water dependency and vulnerability whereby we can see that Bangladesh is highly vulnerable and at a disadvantage position as it has to depend upon the waters from outside the country.

### Table 1: Water Resources and Dependency

<table>
<thead>
<tr>
<th>Country</th>
<th>Total internal renewable water resources(km³)</th>
<th>Total external renewable water resources(km³)</th>
<th>Dependency ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>1,261</td>
<td>636</td>
<td>34</td>
</tr>
<tr>
<td>Pakistan</td>
<td>55</td>
<td>170</td>
<td>77</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>105</td>
<td>1106</td>
<td>91</td>
</tr>
<tr>
<td>Nepal</td>
<td>198</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>China</td>
<td>2812</td>
<td>17</td>
<td>1</td>
</tr>
</tbody>
</table>


The water issue between India and Bangladesh is not new and is not just limited to the Teesta. Infact the two countries had issues right from the sharing of the Ganges. The problem escalated when India decided to build the Farraka Barrage across the Ganga at Raj Mahals, near a village called Farakka in West Bengal about 11 km upstream from the western borders of Bangladesh that was completed in 1975 for diverting 40,000 cusecs[11] of water towards Hooghly and keeping the port of Calcutta operational and the city free from salinity. The construction was regarded as vital for the survival of the Calcutta port and the city as well as to the economy of Eastern India as per the reports of the experts and the Commissions [12].Bangladesh needed the Ganges water mainly for the irrigation of 2 million acres of land under the Ganges- Kobadak project[13] and the construction was viewed by it as a unilateral diversion of the Ganges by India that had adverse effects on Bangladesh especially during the dry season. However the Ganges issue did not culminated into a war rather both the countries came together at the negotiating table and concluded the Ganges Water Sharing Treaty in 1996. Similarly if we take the case of the Teesta even though the issue has been an irritant for a very long time yet there is unlikely that the countries would go for a war over it. In fact if we look at the case of Teesta then both the countries have made several attempts to conclude an agreement on Teesta water sharing as early as 1970’s which though have not been fruitful. Bangladesh is a lower riparian state full of insecurities with regard to water. It is facing serious water stress with implication for regional security and development. The river Teesta is the fourth largest river of the country and is very crucial for the livelihood. Water supports the economy of Bangladesh which is dependent on agriculture, fishing and industry. Further Bangladesh has its own water problems relating to floods, arsenic contamination in ground water and seasonal shortages from time to time together with an increased population leading to water scarcity in the region. Therefore Bangladesh wants the Teesta Agreement to be concluded as soon as possible. If we look at India then the country needs the Teestafor sustaining the livelihood of the northern parts of West Bengal whose economy is dependent on agriculture and fishing. It was because of this reason the Chief Minister of West Bengal refused to sign the Teesta Agreement fearing the region would lose the waters to Bangladesh.

There also have been cases of uproar and criticism but that has been with regard to the failure of concluding the agreement. There has been an impact because of the stalled agreement on both the sides. However despite the unending water issue between India and Bangladesh over the Teesta both the countries have taken a step towards co-operation rather than conflict. The recent example of this collaboration has been the concluding of the Land Boundary Agreement in 2015 which marked a significant development in the history of Indo-Bangladesh relations. Further there has also been the signing of a MoU on Route Permit for carrying petroleum goods to Tripura via Bangladesh. This development brings to the fore the fact that Water today is viewed as a catalyst for co-operation which further paves the way for co-operation in various other fields. Nations today are emphasizing on co-operation and negotiation as in the case of India and Bangladesh rather than heading for war.

### V. Conclusion

Scarcity, dependency, competition and sharing of transboundary waters have made water wars vital in the future where nations inorder to protect their water resources will go for a war with the other nations. The scholars of the Water War thesis have indicated the likeliness of a water wars in the near future. However in the recent years there has been the emergence of another group of scholars who vindicates this point and arguments...
made by the Water war thesis scholars that nation will go for a war over the waters. They pointed out that if water can lead to a war then there is also a possibility of it leading to co-operation. And this is very much true because given the present scenario nations would rather go for negotiation rather than wage a war. The case of India and Bangladesh highlights the same where nations having numerous water issues have not at any point of time thought of going for a war rather they aim at co-operation and negotiation. War was, is and never will be the prime focus and option for any nation. War was, is and will always be the last resort.

This compels us to think and ask, If this is the case then what about the relevance of the Water War thesis? How can the water war rationale be justified? Because scarcity and dependency over water is leading to conflicts but there is no possibility of it resulting into a war. Barring the case of Lagash and Umma there has not been any case of water wars. War today is viewed as expensive to mitigate water scarcity. The late Avraham Tamir, an ex- Major General in the Israel army has substantiated this point by stating:

“Why go for Wars? When the price of one weeks fighting, you could build five desalination plants. No loss of life, no international pressure, and a reliable supply you don’t have to defend in hostile territory.”

Countries today are emphasizing on co-operation as going for war would not guarantee a country’s water supply for the long run.

Further Ramaswamy, R. Iyer has stated “What lies at the heart of water conflict is greed…..Agreements, accords and treaties may temporarily bring peace, but conflict will erupt unless we learn to redefine development”. (Iyer, 2008)[14]

It is a fact that nations around the world are facing the acute problem of water scarcity but it is also stated that nations can well adapt to these growing concerns if they are able to contain the additional withdrawal of water resources from the nature for environmental and geopolitical reasons. Until then the Water War thesis remains highly contested.

REFERENCES