The chapter explores the Indus Water Treaty from Jammu and Kashmir (J&K) perspective and tries to highlight various issues directly or indirectly connected with the same. The chapter focuses on issues like hydropower generation potentialities, difficulties, irrigation-related issues, the rights of the J&K State as per International Conventions, and lastly, the regional disparity that have arisen as an off-shoot of the treaty.

6.1. Introduction of Jammu and Kashmir State (J&K)

The J&K State a landlocked territory, lies in the northern part of the Indian sub-continent and is surrounded by snow-capped high mountain chains of Himalaya and Karakoram. It spreads over 2,22,236 Square kilometers, divided between three countries, i.e. Indian Administered Kashmir, Pakistan Administered Kashmir, and China controlled part, which known as Aksai-Chin. One-third of the area is administrated by Pakistan and two-third is administrated by India and rest is under the control of China.

The State of Jammu and Kashmir is bounded on the northeast by the Uygur Autonomous Region of Sinkiang and Tibet (Peoples Republic of China); it is surrounded by the Indian states of Himachal Pradesh and Punjab on the South, on the northwest by Afghanistan and on the west by Pakistan. By virtue of its important geographical location and richness of its renewable resources, especially water, the State has great political, strategic and economic importance. Water is the most important resource of the State, which is governed by the Indus Water Treaty signed between India and Pakistan.

1 In this chapter the researcher refers to the area under India’s control simply as ‘J&K’ or ‘Indian Administered Kashmir’ (IAK) and the area under Pakistan’s control as ‘Azad Kashmir’ or ‘Pakistan Administered Kashmir (PAK). These terms do not imply in any way political boundaries of Jammu and Kashmir, as most of the scholars have been using the same terms for these areas. India calls the territory under Pakistan control as ‘Pakistan Occupied Kashmir’ (POK) and Pakistan calls the territory under India’s control as ‘Indian Occupied Kashmir’ (IOK), but the researcher has not used any of these terms in this work.

6.2. Indus Water Treaty and J&K State Perspective

The disputed status of Jammu and Kashmir State\(^3\) has given rise to many other disputes including the sharing of water resources. Many of scholars are of from India and Pakistan are of the view that its water resource has become one of the reasons behind the dispute.\(^4\) Geographically the State is a land-lock and has no significant renewable resources other than water and forest. In fact, nature has endowed unending supply of water resources, which is the backbone of the State’s economy. The water bodies of the State have an enormous economic potential in hydro power generation, irrigation to enhance the agriculture, and lakes and ponds for healthy growth of tourism.

However, the potential of these rivers has not been adequately harnessed because of inadequacy of funds and political instability in the region. Secondly, the Indus Water Treaty has imposed restrictions on J&K, and hence the State cannot exploit its water resources without the prior approval of the Indus Commission. All these factors taken together have resulted in an economic backwardness of the State. In the past five decades, no study has been done to quantify the impacts of the treaty on the State. Talking on the Indus Water Treaty Professor Gulshan Majeed is of the opinion that while India and Pakistan had to share the resources and assets as per the principles and conditions of the partition, they bartered, what actually did not belonged to them, in lieu of East Punjab rivers, to safe-guard the interests of Punjab. The proverbial “poor Kashmiri” was again taken unawares and far granted. The then Prime Minister of Kashmir even congratulated in his “innocence” the two countries for enacting an agreement, which had a potential to virtually hamper any water related development in the State of Jammu and Kashmir.\(^5\)

\(^3\) (See in Chapter 1 Introduction, Supra note 23).

\(^5\) Pakistani scholars explain that Kashmir is vital to the country’s economy because it is the source of most of the rivers flowing into Pakistan. Among the various disputes related to Kashmir between India and Pakistan is the construction of dams in Jammu and Kashmir State, which will allow India the control over Pakistan’s irrigation and water sources. Human Rights Watch Report, Vol. 18, no. 12 (c) (2006):25, <http://www.hrw.org/reports/2006/pakistan0906/> (accessed August 13, 2012).

Water resource has crucial economic importance to every region for sustainable development and poverty alleviation. Its role in the developmental process for every region has linked to human rights. In fact, this view is largely discussed, appreciated and recognised by the international community. So far J&K state is concerned; the people of the J&K State are also very much concerned about the use of water resources and its role in the development process of the State. In recent years some economists have raised this issue at the State level and masses are displaying their concerns and angst against the negative consequences of the treaty on the State’s economy.

The Indus Water Treaty was the first bilateral approach to initiate the cordial relations between the two countries, and it was well-received in both the countries. As per the rule and spirit of the treaty, India and Pakistan have constructed various dams and barrages on Eastern and Western rivers respectively. It is admirable that both countries have protected their water rights through a bilaterally signed treaty. But unfortunately, the leaderships in Srinagar and Muzaffarabad have failed to safeguard the water rights of their respective divisions. The three major rivers of the Indus Basin—Jhelum, Chenab and Indus—flow through Jammu and Kashmir State. But under the provision of Indus Water Treaty, the State of Jammu and Kashmir has to seek permission from the Indus Water Commission before any water development program is initiated regarding these rivers. This implies that the treaty which was carried out in the best interests of both the nations has, however, limited the State in its use of water resources affecting the developmental process of the State. Conforming to the criteria of the treaty, the State cannot fully exploit the water potentialities of the Indus, Jhelum and Chenab rivers.

6 In J&K many water resource experts, economists, scholars and member from different walks of society are of the view that water resources are main sources of economy. Exploitation of the water resources would likely to give green light to J&K
7 The perennial power crisis Kashmiris have a right to be compensated for the exploitation of their Rivers by both the neighbouring countries, Concern, (2012):209. <http://www.Greaterkashmir.com/>
The average annual flow of the rivers of Indus system is presented in table 1 and figure 1. The table shows that three western rivers flowing through J&K contribute a huge volume to the Indus river system, which is estimated at approximately 135 MAF (80%) of the total water flow. But, the State has been restricted to utilise its own water resources for fulfilling its requirements. Only a limited utilization of water is permitted for any development purposes, which can be easily understood from the table 2.

### Table 1: Average annual flow of the Indus river system

<table>
<thead>
<tr>
<th>Eastern Rivers</th>
<th>Western Rivers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>41 BCM (33 MAF) 20%</td>
<td>166 BCM (135 MAF) 80%</td>
<td>207 BCM (168 MAF)</td>
</tr>
</tbody>
</table>

Source: IWT 1960 draft

Three Western Rivers of the Indus Basin make the State of Jammu and Kashmir an upper riparian. The modus-operandi of the treaty defines the utilisation of water in J&K as: the State can use only a small quantum of water from the Indus, Chenab and Jhelum for power generation and irrigation purposes. It cannot build reservoirs or dams on these rivers to store water for irrigation and hydroelectric power
Jammu and Kashmir State vis-à-vis Indus Water Treaty

(except “run-of-the-river projects”) without the prior approval of the Indus Commission.\(^\text{10}\)

The treaty places restrictions on the storage capacity of the State on the western rivers as is shown in table 2. The table illustrates that J&K can store only 0.40 million acre feet (MAF) water from the Indus River in Ladakh, 1.50 MAF from the Jhelum River in Kashmir Valley and 1.70 MAF from the Chenab River in Jammu. Taking into consideration the currently assessed and harnessed hydro-potential, the treaty does not allow J&K to generate more than 10 percent of its hydropower and irrigate more than 40 percent land from western rivers.\(^\text{11}\) As a result, the J&K State annually bears a loss of 60 billion Indian rupees (US$1. 3 billion) due to the restrictions of the treaty.\(^\text{12}\)

The study reveals that the total permitted storage on western rivers is not enough to meet the requirements of the State. Even five decades after the signing of this treaty, no storage facility has been constructed on western rivers. The details of the storage permitted in India from western rivers are shown in Annexure E, Article III (4) of the treaty. Moreover, as per Annexure E of the Indus Water Treaty, the aggregate storage capacity of all single purpose and multi-purpose reservoirs which may be constructed by India after the Effective Date shall not exceed the following:

<table>
<thead>
<tr>
<th>River System</th>
<th>Conservation Storage Capacity</th>
<th>Flood Storage Capacity (MAF)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Storage Capacity (MAF)</td>
<td>Power Storage Capacity (MAF)</td>
</tr>
<tr>
<td>The Indus</td>
<td>0.25</td>
<td>0.15</td>
</tr>
<tr>
<td>The Jhelum (Excluding the Jhelum main)</td>
<td>0.50</td>
<td>0.25</td>
</tr>
<tr>
<td>The Jhelum Main</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>The Chenab (Excluding the Chenab Main)</td>
<td>0.50</td>
<td>0.60</td>
</tr>
<tr>
<td>The Chenab Main</td>
<td>Nil</td>
<td>0.60</td>
</tr>
</tbody>
</table>


---


There are some requirements to the above storage allocations to India:

- General storage can be used for any purpose including generation of electricity;
- The power storage, under the third column may also be used for non-consumptive or domestic use, except flood control or protection;
- The power storage capacity on the Chenab may be increased by decreasing the corresponding amounts in the main rivers of Jhelum and Chenab.\textsuperscript{13}

6.3. Hydropower Sector

With the rapid growth of population, urbanisation and industrial growth, electricity demand has increased in J&K. The hydropower resource is a crucial means to meet the increasing demands and support economic growth. In fact, the requirements of power and its availability have been recognized as the surest index for the State’s overall development. Compared to hydropower generation, thermal generation cannot be a solution to meet the increasing energy needs of the State, as it is mountainous and land-locked and at the same time is located away from the pitheads.\textsuperscript{14} On the other hand, the J&K State is not rich in the non-renewable sources of fossil fuels, which could be used for energy generation, but there are huge renewable sources of energy, especially water resources which can meet the demand. The three main rivers flowing through J&K State—the Indus and its tributaries, the Jhelum and its tributaries and the Chenab and its tributaries—offer a tremendous scope for generation of power through hydroelectric plants, which could be a defining factor in the developmental process of the State.

Since hydro-power is an intense need for industrialisation and development, if there is an availability of resources for exploitation in the State, it should be utilised for optimum benefits. Such optimal exploitation of the available resources of the State would meet the State’s demand to boom the overall economy. Further, by harnessing the total estimated power potential of the State, it may prove helpful for bringing peace and stability to the crisis-ridden State. Meanwhile, number of experts are also of the

\textsuperscript{13} Indus Water Treaty 1960

view that power potential of the disputed territory could help to metamorphose the valley of death and destruction to a center of excellence and engineering.

6.3.1. Issues and Challenges for Generating Hydropower Potential

The State has managed to generate around 2500 MW of hydro-power that comes out about 12 percent of the estimated power potential. The treaty does not allow the State to construct storage reservoirs on the three western rivers except run-of-river projects. The total harnessed power potential is on the basis of “run-of-river” schemes with some small “live storage” capacity on three Western Rivers. These types of projects not only increase the construction cost but also adversely affects the cost-effectiveness of power generation from these projects and generation capacity. Comparatively, the run-of-the-river projects using small head-falls are reported to be about 75 percent higher in cost than those hydel projects using high head-falls. These high cost projects generate electricity much below their installed capacity. For instance, run-of-the-river Uri Hydel Project, which was built at the cost of more than US $ 800 million, is producing only 200 MW in winter as against the 480 MW installed capacity. Commenting on these situations, the former Managing Director for J&K Power Development Corporation (JKPDC), Javid Shahmiri, stated that “considering that the hydro potential of the State is about 20,000 MW, annual energy loss works out to 60,000 million units valuing Rs. 12,000 Crores.”

Flowing through the territory of J&K State, the Chenab River has more power potential (shown in figure 2) than others, but there is no effective storage on the Chenab main up to Kishtwar. Three major projects Salal, Dulhasti and Baglihar along with some other small projects are in operation. But the storage capacity of the Salal hydro-power project on the Chenab River has got reduced due to sedimentation. The other projects, such as Baglihar with storage of 0.3MAF, Dulhasti 0.007 MAF on the

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15 “Run-of-River Plant” means a hydro-electric plant that develops power without live Storage as an integral part of the plant, except for poundage and surcharge Storage. (Indus Water Treaty 1960) [article III(2) g]

16 “Live Storage” means all Storage above Dead Storage level. (Indus Water Treaty 1960), [article III(2) b]


18 Ibid.

Chenab rivers have also limited storage capacities. To meet the criteria of the treaty, projects constructed on the western rivers cannot retain the stored water for more than a week.\textsuperscript{20}

In such a situation, the State has been able to harness only about 2500 MW, consisting of 758.70 MW, from 20 power projects and 1680 MW of the 4 power projects under Central Sector (NHPC), i.e. 690 MW from Salal Hydel Electric Project, 480 MW from Uri-I Hydel Electric Project, from Dulhasti 390 MW and 120 MW from the Sewa II.\textsuperscript{21}

Table 3: Breakup of rivers showing the identified, harnessed and under construction power potential of J&K State

<table>
<thead>
<tr>
<th>Rivers</th>
<th>Jhelum</th>
<th>Chenab</th>
<th>Indus</th>
<th>Ravi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential</td>
<td>3560</td>
<td>10360</td>
<td>2060</td>
<td>500</td>
</tr>
<tr>
<td>Harnessed</td>
<td>750.1</td>
<td>1563.8</td>
<td>13.3</td>
<td>129.00</td>
</tr>
<tr>
<td>Under construction</td>
<td>570</td>
<td>450</td>
<td>90.26</td>
<td>0</td>
</tr>
</tbody>
</table>

Fig. 2: Identified, Harnessed and under Construction Power Potential of J&K State

Source: J&K State Hydroelectric Project Development Policy 2011

\textsuperscript{20} Ibid.
Chapter - 6

Jammu and Kashmir State vis-à-vis Indus Water Treaty

The analysis of table 3 and figure 2 show that JKPDC and NHPC collectively generates a total of 2456.20 MW of hydroelectricity, mainly from the three Western Rivers. The table and figure also show that the actual power potential of the Jhelum, Chenab, Indus and Ravi rivers are 3560 MW, 10360, 2060 and 500 MW respectively, whereas, the potential exploited from these river basins is 750.1MW, 1563.8MW, 13.3MW, and 129 MW respectively.

The table further demonstrates that 570 MW on Jhelum, 450 MW on Chenab, and 90.26 MW on Indus River are under construction and the Chenab River has the highest power potential but only 15.09 percent of this has been harnessed so far. Similarly only 0.0064 percent of Indus River and 21.07 percent of Jhelum River have been harnessed.

To the pertaining question, namely why this huge potential has remained unexploited, the common opinions shared by some experts hint at the restrictions placed by the treaty. The State, for any water development on these rivers, needs prior approval of the Indus Commission, due to which development processes are being affected.22 Moreover, some are of the view that as the permitted storage capacity on the Western Rivers for generating 3500 MW electricity is uncertain, the question of 20,000 MW potential appears impossible. Even the much-anticipated 3,500 MW potential looks impossible sometimes, because Pakistan has serious objections to all big projects in J&K, considering them as a violation of the treaty.23

Against Pakistan’s objections on projects, there is a growing resentment in J&K and people are vehemently demanding for the modification of the treaty.24 If, in any case, India and Pakistan agree to modify the treaty as per the demands and interests of J&K, it would probably ensure greater benefits and open up several avenues for unrestrained development in the State of Jammu & Kashmir. It can

23 Iftikhar Hakim, The Indus Water Treaty: An Institutional Mechanism for Addressing Regional Disparity (United Kingdom: VDM Verlag Dr. Muller Publishing House, 2010), 23
improve the potential of hydroelectricity sector and storage facilities can be developed;

- pave the way for industrialisation of the State;

- improve the irrigation facilities, which in turn, would boost agricultural growth and create employment opportunities.\(^\text{25}\)

Even the amount of harnessed power is not benefiting the State’s inhabitants. The shortage of power continues to haunt the State and is a constraint to the development, especially to the growing sectors of industry, agriculture and tourism. In the past fifty years of the signing of the Indus Water Treaty, there has been a sizeable increase in the population. From 1951, the population of J&K has increased from 32,53,852 to 1,25,48,926, which resulted in a big leap in demand for electricity.\(^\text{26}\) But Indus Water Treaty is still standing on the same foot right from 1960. It has neither changed according to the increasing demands of the State nor has its scope been adjusted for the growing population.\(^\text{27}\) The Indus water treaty does debar any upper riparian state to develop run-of the river projects constructed within its set parameters. If state government fails to develop any such prospect causes need to be looked somewhere else. The most of our failures are attributable to our for inaction and in the failed attempts to convince Government of India on the rights and need of the state. The inefficient distribution system, faulty electricity revenue collection process, misuse of power and continued power pilferation and thought, too, contribute to its deficiency in the state. More importantly, state needs to win over the confidence of non state actors make them participate in the developmental sector more particularly in the power sector.

The climate is another factor which is affecting the State’s power potential. Being a mountainous State, major rivers and their tributaries are snow fed; the water flow in different rivers gets depleted during the winter season (from September to February). Thus, the installed capacity of power projects in J&K dips from 25 percent to 30 percent, and therefore, the State is obliged to run the high cost gas-based


generation units and import electricity from the Central Government of India.\textsuperscript{28} It is time that the rivers are fast becoming water deficit due to various causes; more important being the climate changes but the State cannot be exonerated on the pretext for faulty in sufficient water facility in the state. The state is utilising its water far below its actual availability.

Referring to a recent analysis by the State Government, due to the decreasing flow of three rivers, the power generation capacity went down below 50 percent. For example, the Baglihar project has a potential to generate 100 Lac units of electricity, but due to decline in water flow, its generating capacity has decreased from 100 Lac units to 66 Lac units. Similarly, the other major projects have collective potential to generate 26 Lac units of electricity, but due to decline in water flow, it has been reduced to 19 Lac.\textsuperscript{29} To bridge the electricity gap, the State is purchasing electricity from other Indian states at higher price and for the last three decades the trend continues. The shortage of power has hampered the growth of industry and commerce in the State.\textsuperscript{30} Meanwhile, the State’s power demand is estimated to increase to 2,700 MW in 2012–13 and 5,500 MW by 2025–26.\textsuperscript{31}

To justify climate change and its impact on Kashmir water, a report recently published by Professor Shakil A Romshoo, Department of Geology and Earth Sciences, University of Kashmir, can be taken into account. According to Shakil A Romshoo, for the past two decades, water of Jhelum River and its tributaries has considerably reduced and climate change has posed a serious threat to the developmental process.\textsuperscript{32}

If the entire power potential of the State is to be utilised, the power generation can be run as a separate industry on commercial lines and the State can sell surplus power to other Indian states and neighbouring Pakistan as well. This would, undoubtedly, boost the State’s economy and help to attain self-reliance. To meet the

\textsuperscript{28} Ibid.
\textsuperscript{29} Beyond the Indus Treaty: A Perspective on Kashmir’s “Power” Woe, 2012.
\textsuperscript{30} Dost Mohammad and Bhat, Problems of Power Sector Development, 173.
\textsuperscript{31} IDSA Comment, February 2, 2012, Beyond the Indus Water Treaty: A Perspective on Kashmir’s “Power” Woes.
growing demand of electricity, the State has planned to achieve 6000 MW of electricity within the next five years, in a bid to boost the industrial sector of the State. But, this planned development is linked to the other side of the frontier as well. Pakistan is also facing serious water and energy crisis, which are directly linked with India’s construction of projects on the Western Rivers. If the State of J&K tries to build more power projects or exploit more water from Western Rivers, what would be the reaction of Pakistan? It may lead to a fierce competition and conflict between India and Pakistan. During the last decade, the power shortfall trend was observed in J&K and is represented in the following table 4 and figure:

**Table 4: Jammu & Kashmir’s Energy Shortfalls (MUs)**

<table>
<thead>
<tr>
<th>Years</th>
<th>2006-07</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Demand</td>
<td>11343.0</td>
<td>14037.00</td>
<td>14750.00</td>
<td>15656.00</td>
<td>16544.00</td>
</tr>
<tr>
<td>Power Availability in J&amp;K and Received free from NHPC</td>
<td>1717.64</td>
<td>1728.59</td>
<td>2641.22</td>
<td>3055.021</td>
<td>3379.692</td>
</tr>
<tr>
<td>Shortfall of Power</td>
<td>9625.36</td>
<td>12308.41</td>
<td>12108.78</td>
<td>12600</td>
<td>13164.308</td>
</tr>
</tbody>
</table>


The energy shortfall in the last decade in J&K is shown in table 4 and figure. From 2006-07 to 2010-11 the actual demand has increased from 11343 MUs to 16544 MUs. During this period, although the power availability from JKPDC and the State’s
share from NHPC run power projects has increased from 1717.64 MUs to 3379.692 MUs, falls short of the actual demand. This has created a wide chasm between the demand and supply. In order to bridge this gap, the State government is purchasing power from the Central sector, yet the requirements remain unfulfilled.

Table 5: Power Purchased from outside of the State (in Lac Kwhs)

<table>
<thead>
<tr>
<th>Years</th>
<th>Power Purchased</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-00</td>
<td>43466.90</td>
</tr>
<tr>
<td>2001-02</td>
<td>49894.80</td>
</tr>
<tr>
<td>2003-04</td>
<td>62327.00</td>
</tr>
<tr>
<td>2004-05</td>
<td>65666.50</td>
</tr>
<tr>
<td>2005-06</td>
<td>71920.00</td>
</tr>
<tr>
<td>2006-07</td>
<td>82170.00</td>
</tr>
<tr>
<td>2007-08</td>
<td>78734.07</td>
</tr>
<tr>
<td>2008-09</td>
<td>78734.07 (P)</td>
</tr>
</tbody>
</table>


Table 5, while highlighting figures for the last decade, shows that, except in 2007-08, there was a continuous increase in power purchases from 1999-00 to 2008-09. These figures have almost doubled over the years. It means that the State has to pay a huge amount for power purchases from other States. For example, the total
expenditure on the import of power during 1996-97 was Rs. 400 crores, which could install a generating capacity of 150 MW project in the State, and this amount is increasing year after year. As far as the central projects are concerned, the State is receiving only 12 percent free power as royalty from these projects. This 12 percent royalty is not enough to meet the growing demand of the State. On the other hand, to meet the energy requirements, the State spends a huge amount of Rs 2,000 Crores on purchasing power, around one third of the State’s annual plan budget.

The State Government and other sections of society have raised objections to projects executed by the NHPC. According to them thus, projects are neither benefiting the State in power supply nor in terms of employment opportunities to an expected extent. It is quite undesirable that projects, such as Salal, Dulhasti and Uri have been built in Kashmir but electricity generated from these projects is utilised elsewhere in India. Still 25 percent population of J&K has no access to electricity and the remaining proportion of the population relying on episodic electricity, which is often cut off for hours in winters.

If the State had been allowed to utilise its water resources freely, the State could have been able to produce the increased amount of electricity within the State and the huge amount of money which it has to pay for purchasing the power outside the State could have been invested for other developmental purposes that might result in overall growth of the State’s economy. Also, because of its abundant water resources, it could have been able to generate surplus electricity, which it could have exported to neighbouring States providing additional revenue to the State.

6.4. Irrigation

Irrigation is one of the significant inputs accomplishing sustained agricultural growth and reducing inequality and poverty. The irrigation network has a potential to sustain industrial growth through agricultural productivity, employment and income generation through command area and watershed management. Irrigation is the lifeline

Dost Muhammad and A. S. Bhat, Towards Understanding the Kashmir Crisis, 182.
Ibid., 174.
for an economy and its people, as the major chunk of population of J&K State lives in rural areas and is dependent on agriculture for their livelihood. If we look into the annals of Kashmir, irrigation development started long ago during the reign of Lalitaditya, the great ruler of Kashmir, when a remarkable irrigation system was developed which survived for centuries.

Although, presently, the Government of J&K has a well-established department of irrigation which looks after the irrigation system, the utilisation of water for irrigation purposes is guided by the Indus Water Treaty. The irrigation department is not free to utilise the water for required irrigation. In fact, the Indus Water Treaty has imposed some restrictions on State’s water utilisation. The State cannot fully exploit the irrigation potential of the Indus, Jhelum and Chenab rivers. Nonetheless, the official commentator of irrigation department of J&K said that the treaty has offered a great scope for irrigation development in the State, but the State has not been able to harness even a bit of that and opined if the State irrigation department would utilise permissible water for irrigation purposes, the agriculture produce would increase to more than its double, and the State would become self-sufficient in food grains production.36

Irrigation potential in J&K has been assessed at 1358 thousand hectares, which includes 250 thousand hectares to be developed through major and medium Irrigation and 1108 thousand hectares through minor irrigation. However, till the end of the 10th Plan, the State has been able to create a total potential of 677.66 thousand hectares through major and medium surface water schemes, out of which, only 580.61 thousand hectares are being utilised. The minister for Flood Control and Irrigation of J&K Stated that the J&K State government is going to start construction of the canal on the Ravi River in Jammu Province, which would provide water to 1,33,000 Kanals barren land and will produce 2,66,000 tons food grains and also facilitate 7 Lac inhabitants.

At present, in J&K, there are 22 major, 534 medium and 235 minor irrigation schemes in operation which provides irrigation to the State through the Indus, Jhelum, Chenab and the Ravi Rivers.37 Besides these projects, 14 medium and 13 renovation projects are also under construction. There are some proposed projects pending in J&K

which needs permission from the Indus Water Treaty commission, as F.A Shaheen in his research paper stated that the State of J&K has 12 new irrigation projects which are pending for want of permission from the Indus Water Treaty commission.\textsuperscript{38} But the department of irrigation and flood control counter claims that the entire scheme has been completed and three new proposed schemes are now pending with the Commission.\textsuperscript{39}

As of the effective date when the treaty was signed on April 1, 1960, India was irrigating an area of 6.42 Lac acres of the Western Rivers and under the treaty, India was entitled to irrigate an additional irrigated cropped area (ICA) of 7.01 Lac acres (total of 13.43 Lac acres). India is permitted to irrigate the whole area of the western rivers as per the treaty, which is illustrated in Table 6.

\textbf{Table 6: Irrigation Entitlement to India from Western Rivers}

<table>
<thead>
<tr>
<th>Name of river</th>
<th>The Indus</th>
<th>The Jhelum</th>
<th>The Chenab</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated Cropped Area (ICA) in acres</td>
<td>70,000</td>
<td>4,00,000</td>
<td>2,31,000\textsuperscript{*}</td>
<td>7,01,000</td>
</tr>
</tbody>
</table>

\textsuperscript{*}Includes 6000 Acres outside the drainage basin of the Chenab

A restriction has, however, been put on India that to India can release water from the conservation storage as stipulated in Annexure E of the treaty, the new areas developed by withdrawals from river flow shall not exceed 270,000 acres of the ICA (Jhelum 150,000, Indus 70,000 and Chenab 50,000).\textsuperscript{40}

The State in 1955-56 could irrigate 277.00 thousand hectares by canals, 1.00 hectares by tanks, 3.00 hectares by wells and 9.00 hectares by other sources. Against this backdrop, in 2007-08, the State could irrigate only 285.78 thousand hectares by canals, 4.22 hectares by tanks, 0.99 hectares by wells and 17.00 thousand hectares by other sources. It shows that for a period of almost 53 years, there has been a negligible increase of 17.99 thousand hectares in the total cropped area from all sources.

\textsuperscript{38} F.A Shaheen et al., Sustaining Energy and Food Security in Transboundary River System: Case of Indus Basin, Sher-e-Kashmir University of Agricultural Science and Technology, Srinagar, India.
\textsuperscript{39} Information Collected from the Irrigation Department of J&K Srinagar, (1 February, 2012).
\textsuperscript{40} \textit{Indus Water Treaty 1960}.
Therefore, the present sources of irrigation are not enough to meet the water demands of increasing agricultural areas of the State.

As per the economic survey, the State is lacking in irrigation infrastructure. Out of the total area under cultivation, 58 percent is rain fed which depends upon the vagaries of climatic conditions.\(^{41}\) Therefore, the rain fed land is unable to yield optimum production because it is highly dependent on the climatic patterns. From the last few years the climatic trend has changed drastically, which impacts the agriculture and hence results in low agricultural production. These changes demand adequate irrigation infrastructure and storage facilities, so that maximum production target could be achieved in the State. But the Indus Water Treaty restricts the State to harness water for mega irrigation projects. Thus, the treaty acts as a bottleneck in the irrigation development which affects the agricultural productivity of the State.

The treaty has fixed basin-wise irrigated cropped area in J&K. It cannot be legally extended. The additional permitted quantity of water for irrigation purposes has also been fixed. The State is permitted to store only 0.05 MAF water under general storage on Jhelum and Chenab basins. However, this water cannot be stored in the Jhelum main or Chenab main but, in various streams that form the tributaries of these rivers. For every new irrigation scheme which the State aspires to develop, it has to seek permission from the Indus Commission.

### Table 7: Breakup of Maximum Permissible Limits for Irrigation on Western Rivers (ICA)\(^{42}\) and Achieved ICA

<table>
<thead>
<tr>
<th>River Basin</th>
<th>ICA permissible as on the effective date (1-4-1960) (in Acres)</th>
<th>Additional ICA permissible (in Acres)</th>
<th>Net ICA permissible (in Acre)</th>
<th>Total Achieved ICA in 2008 (Acres)</th>
<th>Total Achieved ICA in 2009-10 (Acres)</th>
<th>Percentage of Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indus</td>
<td>42,179</td>
<td>70,000</td>
<td>1,12,179</td>
<td>51175</td>
<td>51536</td>
<td>+0.71</td>
</tr>
<tr>
<td>Jhelum</td>
<td>5,17,909</td>
<td>1,50,000</td>
<td>6,67,909</td>
<td>633002</td>
<td>6,33,002</td>
<td>+0.22</td>
</tr>
<tr>
<td>Chenab</td>
<td>82,389</td>
<td>50,000</td>
<td>1,32,389</td>
<td>99068</td>
<td>99014</td>
<td>-0.05</td>
</tr>
<tr>
<td>Total</td>
<td>9,12,477</td>
<td>7,81,847</td>
<td>7,83,552</td>
<td></td>
<td></td>
<td>0.22</td>
</tr>
</tbody>
</table>

**Sources:** Indus Water Treaty 1960 and Financial Commission of Revenue, J&K State (February 2012)


\(^{42}\) ICA (Irrigated Cropped Area): means the total area under irrigation in a year, the same area being continued twice if it bears different crops in Kharif and Rabi. Source IWT Draft 1960, Annexure C, Article III (2).
Table 7 demonstrates that the Indus Water Treaty provides a gross irrigated area of 9,12,477 acres for J&K. But, still the legally provided irrigated cropped area has not been achieved fully since 1960. The total irrigated cropped area in 2009-10 was 7,83,552 acres, which shows only a slight growth of 0.22 percent over the previous year (2008). This indicates that about 1,28,925 acres are yet to be irrigated as per the dictates of the treaty. The Indus Water Treaty has also permitted separate irrigation facilities on each river basin according to population density and physical condition of the area. For instance, in Ladakh the Indus Water Treaty provides a gross irrigated area of 1,12,179 acres (45397 hectares) from the Indus River and its tributaries. The total cultivable area in Ladakh region is only 71540 acres (28953 hectares). Therefore, all the cultivable area of Ladakh region can be brought under irrigation within the parameters of the treaty, but the provisions cannot be fully utilised as the cultivable area is limited.

In the Jhelum Basin, the irrigated cropped area on the effective date when the treaty signed was 5,17,909 acres (209544 hectares). The additional cropped area permissible, without any storage as per the treaty, works out to be 6,67,909 acres (267163 hectares), out of which 6,33,002 acres (2,56,172 hectares) has already been achieved in 2010. The net irrigated area is estimated to be 4,79,621 acres (1,94,400 hectares) with irrigation intensity being about 1.36. To enhance the irrigation facilities and thereby maximum agriculture production the state government introduces different methods and techniques. The large number of surface water schemes, lift irrigation schemes, dug wells; shallow tube-wells have also been developed.

The table 7 makes it clear that the maximum permitted cropped area of the Jhelum basin has almost been exceeded. It is also evident that on the Jhelum basin in Kashmir Valley, there is no scope for further irrigation. However, to achieve the permissible irrigated cropped area of 9,17,909 acres (3,71,473 hectares), (i.e. ICA as was irrigated on the effective date plus the ICA permitted under the Indus Water Treaty), it is apparent that the future projects in the Jhelum Basin ought to be stored based projects, from where the releases as per the provisions of Indus Water Treaty can be made for further irrigation. But, keeping in mind the vulnerability of Pakistan,
it is also possible that if India exercises its right to store 1.5 MAF on Jhelum, River\textsuperscript{43} it may become a cause of conflict between the two countries.

The Jammu region is mostly irrigated by the river Chenab and its tributaries. The main sources of irrigation are canals, tube-wells, shallow tube-wells, tanks and springs. Thus, a large number of minor canal networks have been made in the hilly areas of the Chenab basin. There are about 5777 minor irrigation schemes—surface flow (1847), surface lift (94), Deep tube wells (20), Shallow tube wells (1371) and Bumbies (2445). It is obvious that minor irrigation schemes have played a significant role in the development of irrigated agriculture in Jammu region. Also, in plain areas of Jammu, two major canals namely Ranbir canal and Partab canal were constructed way back during 1903-04 which irrigate a vast track of land on either side of the river Chenab. From 1979-80, the Tawi River has also been harnessed by 40,070 hectares irrigated area in 2010. There are some restrictions placed by the treaty for expanding the irrigation area without creating storages.

The above analysis shows that irrigation facilities in the State have been mostly covered in the additional area permissible without releases from the storage, except Indus sub basin where the agricultural cropped area is quite limited and there is no large scope for further irrigation. Creation of storage projects in Jhelum and Chenab basin is, therefore, important for the release of water and achieving the additional irrigation in Jhelum and Chenab sub-basins. Hence, the additional ICA that can be developed with annual releases from conservation storage is shown in the following (table 8).

\textsuperscript{43} The storage on Jhelum basin will reduce the water flow for Mangla Dam and Pakistan will be unable to fill the proposed 40 feet height of the dam. Also the storage of 1.5 MAF for irrigation in Indian Administered Kashmir on Jhelum basin will affect the ongoing Neelum-Jhelum Project in Pakistan Administered Kashmir. (Subrahmanyam Sridhar, The Indus Water Treaty, (n .d) <http://www.bharat-rakshak.com/SRR/Volume13/sridhar.html>( accessed march 11, 2012)
Table 8: Breakup of Additional Cropped Area on Western Rivers (in Acres)

<table>
<thead>
<tr>
<th>River basin</th>
<th>Area in acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indus</td>
<td>Nil</td>
</tr>
<tr>
<td>Jhelum</td>
<td>2,50,000</td>
</tr>
<tr>
<td>Chenab</td>
<td>1,75,000</td>
</tr>
<tr>
<td>Total</td>
<td>4,25,000</td>
</tr>
</tbody>
</table>


Table 8 depicts that 4,25,000 acres of additional irrigated area can be developed by way of conservation storage on two rivers, viz. Jhelum and Chenab. However, as per the survey conducted by Central Water Commission India (CWC) and the J&K State Government, the scope of development of storage in the Jhelum is quite limited. It is about less than 0.1 MAF. In the Chenab River basin, the scope of storage is very limited except Bursar hydroelectric project. To enhance the irrigation potentialities, the State government has started the construction of Bursar project, which would be the first of its kind in its capacity to harness the irrigation potential by the storage of water. But, storage on the Western Rivers seems to be a cause of conflict and tension between the two countries. To provide evidence to this fact soon after the construction of Bursar Project and building of artificial lake on Tawi River, Pakistan raised objections, considering them as the violation of treaty. These disputes highlight the fact that the treaty has failed to safeguard the rights of both parties in the way they were stipulated in the treaty. The treaty also proved a handicap for the State of J&K by affecting the growth and development of the State in power and agriculture.


The storage on Chenab basin has become a cause of conflict between India and Pakistan. For instance the construction of Bursar project on Marusudar River (Chenab tributary) for irrigation and 1020 MWs’ power generation is a controversy between two countries. Pakistan objected that the Bursar Dam is the biggest project among a host of others being built by India on two major rivers – Jhelum and Chenab, with a generation capacity of 1,020MW and a height of 252ft. According to Pakistan these specifications will be in gross violation of the treaty and will block 2.2MAF of water to Pakistan, however the Indian government has not confirmed the design and has stated that it will give Pakistan notice 6 months before it starts construction or work as is stipulated in the IWT. (Gitanjali Bakshi and Sahiba Trivedi, the Indus equation (2011), 27, Published by Strategic Foresight Group: Mumbai)
6.5. Utilisation of Water Resources in Azad Kashmir (AK) or Pakistan Administrated Kashmir (PAK)

Situated between the longitude of 730-750 and 330-360, Azad Kashmir comprises an area of 5134 Sq. Miles (13297 Square Kilometers). Topographically, AK is mainly mountainous, with small valleys and stretches of plains. It is a region which has considerable water resources that are beneficial for small irrigation schemes to enhance the agriculture on barren and plateau types of lands and for the tourism development through small artificial lakes. Even though Jhelum, Neelum and Poonch rivers flowing through the State offer a good scope for generating hydro power that could fuel the economic growth, the AK Government has not been able to harness the optimum benefits of these water resources for the economic and human development of the State, because the region is financially dependent on Pakistan which allocates the funds to AK through the Kashmir Council. It is estimated that AK has the hydro-power capacity of about 5,000 to 7,170 MW.

The Azad Jammu and Kashmir Hydro Electric Board (AJKHEB), established in 1989 by the Government of Azad Kashmir, estimated hydroelectricity potential at around 4635 MW (in some estimates the AK has 5,000 to 7,170 MW potential). But, AJKHEB has been able to harness only 40.9 MW (a critical barrier to the area’s growth and development) as shown in table 10. The board has completed the 1.6 MW Kathai, 2 MW Kundel Shahi, 2 MW Leepa and 30.4 MW Jagran hydel power projects.46

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46 AJK Hydro Electric Board Muzaffarabad, (2012)
Table 9: Identified and Harnessed Power Potential (in MW)

<table>
<thead>
<tr>
<th>Total Identified potential MW</th>
<th>Power Availability (MW)</th>
<th>Power Demand (MW)</th>
<th>Power Shortfall (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4635</td>
<td>40.9</td>
<td>430</td>
<td>389.1</td>
</tr>
</tbody>
</table>

Source: AJK HEB Muzaffarabad 2012.

The table and figure illustrate that the State has 4635 MW power potential but it has been able to harness only 40.9 MW, which is much less than the current power demands of 430 MW. There is a big gap between demand and the availability of power. Thus, the region is facing 389.1 MW shortage of power. To bridge the power shortage gap, the AK Government is purchasing power from WAPADA, whose electricity tariffs are RS 4.25 a unit in AK as compared to Rs.2.85 a unit in Pakistan.\(^47\) Theses extra electricity tariffs put a heavy financial burden on the Government of AK and its people.

Despite having abundant water resources, why is AK not able to harness sufficient electricity for its own uses and for the development of the region. There are

two reasons: Firstly, due to the financial dependency on Pakistan, the AK Government is unable to construct any mega projects which could generate surplus electricity. Secondly, by the signing of the Indus Water Treaty, water resources are largely allocated to Pakistan which has constructed various projects in downstream to AK including the mega project Mangla. Therefore, it is usually difficult for AK to tap its water resources to a large extent independently.

The Indus Water Treaty is not only unfavorable for Indian Administered Kashmir, but it is also disadvantageous for Pakistan Administered Kashmir, because the treaty has deprived the regions to utilise their resources independently.

6.5.1. Mangla Dam and its consequences

The Mangla dam is a direct result of the Indus Water Treaty through which Pakistan generates 1000 MW electricity. But the project has not given much benefit to the people of AK. When the dam was first built in 1967, around 300,000 people were displaced in order to meet the water and energy needs and were promised of generous compensation from Pakistan.

Although the displaced people claimed that the Mangla dam is a glaring example of their sacrifices for Pakistan, the role of beneficiary has remained unfair towards the people of AK, especially to the inhabitants of Mirpur district. On 3 October, 1957 at the time of the construction of dam, Pakistan assured to the United Nations (UN) that the Mangla dam project was being carried out in cooperation with AK Government. It was informed to the UN that the project would greatly strengthen the economy of AK and would, in no way, adversely affect the existing interests.\(^{48}\) However, C. Snedden (2013), highlihts that only Pakistan and Pakistanis are the main beneficiaries of the Mangla dam in terms of irrigation and cheap electricity, as the dam is Pakistan’s second largest source of electricity after Tarbela and major water storage facility for Punjab’s irrigation system.\(^{49}\) Mangla is thus critical to the success of the Pakistani economy as a whole. Yet, despite the great benefits it has brought to


everyone in Pakistan proper, those unfortunate enough to live immediately upstream of the dam have had to bear the brunt of its environmental costs.\(^{50}\)

Also, from an economic point of view, the project can be considered as disadvantageous to Azad Kashmir. To justify this fact, it is pertinent to mention here that the most fertile land of AK, agriculture, business, markets, towns, transportations and communications were adversely affected by the project. Till 2003, the Government of Pakistan did not pay any royalty to the concerned State for using its territory for the construction of the project, despite the allocation of significant revenue resulting from the dam, which is about RS. 7 billion annually. For the last four decades, the project has made significant contributions to Pakistan’s economy, which is roughly estimated at about Rs. 280 billion. Since its inauguration in 1968, it has a power generation capacity of 1000 MW, which fulfills 20 percent of the total electricity needs of Pakistan. Nevertheless, the WAPADA officials claimed that they paid considerable amount which is about R.S 50 billion for affected people via respective governments.\(^{51}\)

From 2003, the Pakistan Government regularly started compensating AK, but in comparison to other provinces, AK received very insufficient compensation, i.e., only 15 paisa per unit, whereas other provinces of Pakistan are receiving 70 Paisa per unit.\(^{52}\) Azad Kashmir is yet to get its Rs120 billion outstanding amounts from Islamabad, whereas other provinces of Pakistan, such as Khyber-Pakhtunkhwa was recently paid Rs120 billion for Tarbela, Punjab was paid Rs 28 billion for Ghazi Barotha and Balochistan was paid Rs120 billion for Sui Gas.\(^{53}\) Such discriminatory treatment and denial of rights from beneficiaries of Mangla has widened the trust gap between Islamabad and Muzaffarabad. C. Snedden (2013), in his book the “\textit{The Unwritten History of Kashmir}” is of the view that had Azad Kashmir received reasonable revenues from hydroelectricity generated by the Mangla dam and had


\(^{52}\) Ibid.

Pakistan kept its promises, the Azad Kashmir today would have been economically prosperous and independent of Islamabad.\textsuperscript{54}

There are some other view that if Azad Kashmir could get control over its hydro resources and develop its own projects within the region, it would not only fulfill local requirements but also boost up the economy by selling surplus power in Pakistan. It would release AK from the financial dependency on Pakistan and also revolutionise the entire economy.

\textbf{6.5.2. Mangla dam and rights over water as a source of tension between Islamabad and Muzaffarabad}

Mangla dam, which affects the waters of AK, is a continuous source of tension between Muzaffarabad and Islamabad. The construction of dam has dislocated the well-off Mirpuris community, which felt a sense of wrongfulness and economic exploitation by Pakistan.\textsuperscript{55} Hence, the debate over Mangla dam plays an important role in shaping up the discontent of Mirpuris with Pakistan. Over the same issue, not only Mirpuris displayed their angst but the entire AK is agitated because electricity generated from the project and the revenue obtained from the same are not beneficial to local people, which have eventually brought all Kashmiris together. Also, this situation actually possesses a socio-political challenge to the local government and Pakistan too.

Pakistan’s main concern over the Mangla dam is that its construction is a direct result of the Indus Water Treaty of 1960 with India wherein the World Bank had acted as guarantor. But the people of Azad Kashmir in general and the Mirpuris in particular are of the view that water is their natural resource that has been exploited by the Pakistan without any regard to the rights of Kashmiris. “Arabs have the oil, the Baloch have minerals and Kashmir has water.”\textsuperscript{56} Pakistan uses their water, even generates electricity from the region, which is utilised in Pakistan rather than in their region resulting in acute electricity shortage in the region concerned. In spite of generating 1,000 MW from the Mangla dam, the region gets 5-10 hours episodic electricity per

\textsuperscript{54} Christopher. Snedden, Kashmir: the Unwritten History, 180-84.
\textsuperscript{56} Ibid.,
day (though the Azad Kashmir has low electricity demand), and the electricity tariffs are higher than Pakistan’s other provinces, which reflects the discriminatory attitude of WAPAD and Pakistani authorities.

In Azad Kashmir, various vehement protests are being launched demanding the Pakistan Government to stop the exploitation of AK through WAPADA and return projects controlled by WAPADA. They have strong discontentment over water and electricity shortfall, which is being highlighted by local newspapers persistently. The Azad Kashmir political leadership has also echoed its voices against such exploitations. Neither Pakistan’s power Development Corporation nor the Pakistan Government has shown any contemplative move on this issue. As a result, there has been a trust gap between Islamabad and Muzaffarabad over the dam and water rights.


With the signing of the Indus Water Treaty, India and Pakistan began a new chapter in bilateral relations, which in turn, maintained peace and protected their water rights. However, a large section of Kashmiri society claims that the two countries hardly showed any concerns to the rights and interests of the State of Jammu and Kashmir. The United Nations (UN) has defined water as “public good”. But, during the mediation process of the Indus Water Treaty, the World Bank appointees overlooked the question of ‘public good’ and water situation in the State of J&K. The decision over state resources was taken into consideration without any proper consultation with the J&K State. It was not a deliberate omission on the part of World Bank. It wanted to make both the countries realize the need for cooperation and compromise. No compromise, anywhere and under any condition is every just or equal for the parties concerned; compromise is an opportunity to stem the further rot and utilize the time and energy thus saved to build and manage one’s resources. Indus water Treaty did exactly the same.58

At present, the State of J&K is raising questions over Indus Water Treaty and its unjustified water distribution system. Pakistan has received the water resources (western rivers) from the disputed territory to safeguard its own interests. In the same

58 Discussion with Professor Gulshan Majeed on January 5, 2012.
manner, India, for its northern States, sacrificed the rights of J&K by entrusting western rivers to Pakistan. In this way, both India and Pakistan agreed upon the disputed waters of Kashmir in order to attain their control over eastern and western rivers for the development of their respective states by promoting irrigation facilities and agriculture and by fulfilling their energy needs at the cost of the rights of J&K State.

So far as India is concerned with regard to the waters of the State, the Central Government of India has no right to take any exclusive decision on the State’s resources without prior consultation with the State. According to the Indian Constitution, water is a state subject and states have the exclusive power to regulate their water supplies, irrigation and hydropower infrastructure. List II of the Seventh Schedule of Indian Constitution, states:

“Water is basically a State subject and the union comes in only in the case of inter-state river water dispute.”

The States must be consulted and their agreement must be obtained before any treaty, which affects the interest of those states, is signed with an external power. It is clear from Article 246 (3), which States:

“Subject to clauses (1) and (2), the Legislature of any State has exclusive power to make laws of such State or any part thereof with respect to any of the matters enumerated in List II in the Seventh Schedule (in this Constitution referred to as the “State List”).”

However, recently, the Chief Minister of West Bengal, Mamta Banerjee, rejected the water agreement with Bangladesh on the ground that the agreement is not paying attention to the rights and interests of West Bengal. The Chief Minister, in order to protect water rights of West Bengal, denied accepting the interim Teesta River water sharing deal between New Delhi and Dhaka. Her views were that the Teesta agreement is not in unison with the interests and considerations of the State. Subsequently, Delhi cancelled the proposed Teesta Water Sharing Deal with Bangladesh. The Central

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59 Article 262 (1), 1) Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter-State river or river valley. (India Constitution Article 262 (1)
60 India Constitution Article 246 (3)
Government of India decided that nothing will be done without the consultation of West Bengal.\textsuperscript{61}

In case of J&K, the Central Government has not consulted the State Government while signing the Indus Water Treaty with Pakistan and ignored the State’s subject list by overlooking its constitutional rule, while in other states the Central Government has not encroached on the rights. The Indian Constitution does not allow any undue interference in the water resources of the State except disputes between the states as per Article 262 (1) of the Indian Constitution. In addition, in the case of J&K, the Center-State relations are governed by Article 370 of the Indian Constitution, which gives “Special Status” to J&K, limiting the legislative powers of the Central Government in making laws for the State except on entries in the Instrument of Accession or in consultation with the Government of the State.\textsuperscript{62}

At the time of the signing of the treaty, there was no strong objection raised by the State against the treaty. It was because at that time J&K was a political naiveté and there was no prominent political figure except Sheikh Abdullah who could have raised objection but, he was behind the bars.\textsuperscript{63}

As far as Azad Kashmir is concerned, Pakistan has also failed to address the water rights of Azad Kashmir. The Indian Constitution reads water as a state issue. In Pakistan, the situation is quite similar. According to Pakistan Constitution, water is a provincial subject, and provinces of Pakistan have rights to protect their water rights. The Pakistan Water and Development Act of 1958 provided unified and coordinated development of water and power resources. However, each province of Pakistan has

\begin{itemize}
\item \textsuperscript{62} The power of Parliament to make laws for the said State shall be limited to:-
(i) those matters in the Union List and the Concurrent List which, in consultation with the Government of the State, are declared by the President to correspond to matters specified in the Instrument of Accession governing the accession of the State to the Dominion of India as the matters with respect to which the Dominion Legislature may make laws for that State; (article 370 (b) of the Indian Constitution)
\item \textsuperscript{63} In the Kashmir conspiracy case Sheikh Abdullah and twenty five others, ten of whom where in hiding or in Pakistan, were charged with conspiracy to overawe by force and show of force the duly constituted government of the state of Jammu and Kashmir, with object of overthrowing it and facilitating an annexation of the state’s territory by Pakistan. Sheikh Abdullah the former Prime Minister of the state was dismissed and detained under the state preventive detention act on August 9, 1953. He was released in January 1958, but rearrested in April 1958 for allegedly making inflammatory speeches. (Anand, A. S, The Constitution of Jammu and Kashmir: Its Development and Comments, (New Delhi: Universal Law Publishing Company, 2006), 78-79.
\end{itemize}
its own department, which looks after the management of water resources. But the Azad Kashmir (free Kashmir) is still neither a sovereign state nor a province of Pakistan. The region is politically integrated with Pakistan under the United Nations resolution. Therefore, the Azad Kashmir has been treated in many respect as the administered units of Pakistan but it has not any Constitutional rights and power as enjoyed similar to the provinces of Pakistan. As far water rights of AK are concerned. The water rights of Azad Kashmir are not defined in the Constitution of Pakistan. The Azad Kashmir Interim Act of 1974 gives authority to Kashmir Council over State's natural assets water, ecological sites and minerals. But the Council failed to protect the water rights of Azad Kashmir as could be gleaned from the 1991 Water Distribution Accord.

Azad Kashmir is unique by situated to Pakistan. The mutual relations remain unspecified and undefined in the face of inconsistent theoretical commitments and quality of the practical involvements of the Pakistan in the affairs of Azad Kashmir. It is neither the province of Pakistan nor a sovereign country. As is evident by the examples given below:

The Pakistan power and distribution act provide unified and coordinated development of water of power resources, it envisage, enacts creates revenues for necessary funding and offers technical guidance for the future projects on its domain. Furthermore, every Pakistan province has its own concerned department for the management of water. But AK is deprived of any such facility because its status vis-à-vis Pakistan is virtually undefined and the constitution of Pakistan has nothing to say about the water rights of AK.

The 1991 Water Distribution Accord, which justifies the water utilisation rights of the provinces, ignores AK on the pretext that it is not the member of Indus River System Authority (IRSA). Thus jeopardizing the water rights of the state. It is also debarred from any water allocation programme under the water and apportioned

65 See Azad Kashmir Council Legislative List
accord. Had AK been considered one of the province of Pakistan, it would have enjoyed constitutional position to protect its water rights. Now had it been a sovereign country then, international water law could have helped it defend its water requirements. But AK is a looser on both the counts. When president of AK is made a plea with the president of Pakistan for the withdrawal of water from Mangla dam, it was simply ignored.67


Within the purview of international water management principles, there are various provisions that regulate and manage the watercourses between and among the watercourse States, such as the Helsinki Rules (1966) Article IV states:

Article VI stipulates, Each basin State is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin, and the Article VII defines,

a basin state may not be denied the present reasonable use of the waters of an international drainage basin to reserve for a co-basin State a future use of such waters. 69

The United Nations International Water Convention (UNIWC) (1997) Article V (1) defines:

Watercourse States shall in their respective territories utilize an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilization thereof and benefits there from, taking into account the interests of the watercourse States concerned,

68 The Helsinki Rules (1966), Article IV.
69 Ibid., Article VII.
consistent with adequate protection of the watercourse.\textsuperscript{70} and the Berlin Rules (2004) Article 10 (1) states:

basin states have the right to participate in the management of waters of an international drainage basin in an equitable, reasonable, and sustainable manner.\textsuperscript{71}

But above mentioned laws does not address disputed states’ rights and apply only to independent sovereign states. There is no such mechanism to address the rights of the Jammu and Kashmir either in the Indus Water Treaty or at the International level.\textsuperscript{72} Hence, the key parties of the treaty (India and Pakistan) shall consider the needs as well as the future requirements of the State of Jammu and Kashmir. The responsibility lies with New Delhi and Islamabad to accommodate the State’s interests by allowing the State to utilise its water resources in the best possible manner. The people who drafted the treaty did not keep an exit clause in it. However, Article XII of the treaty provides a modification of the treaty and this is where the grievances of the people of Jammu Kashmir can be addressed without prejudicing the greater interests of the India and Pakistan.

6.8. Regional Disparity

As discussed above, despite being rich in water resources, Jammu and Kashmir State has been unable to harness its water resources because of the restrictions placed by the Indus Water treaty. This has led to the regional disparity as the State mostly has meager resources other than water, agriculture and tourism—the latter two, too, being dependent to a large extent upon the former. Secondly, the treaty has also added to this disparity, as the State, since the inception of the treaty, remained in inaction both in agricultural as well as in industrial development to a large extent.\textsuperscript{73}

“In less than 120 years, Kashmir was twice reduced to a non-entity by a political action taken by the parties who had no legal rights over the product they were bargaining, in order to provide relief to a part of theirs Punjab as whole, considered to be of much political value to them. In 1846, the Britishers, true to their character and

\textsuperscript{70} United Nations International Water Convention 1997, Article V (1).
\textsuperscript{71} Berlin Rules, 2004, Article 10 (1).
\textsuperscript{72} Iftikhar Hakim, \textit{The Indus Water Treaty: An Institutional Mechanism for Addressing Regional Disparity} (United Kingdom: VDM Verlag Dr. Muller Publishing House LTD, 2010), 16-18.
\textsuperscript{73} Ibid., 62.
purpose of stay in India, sold Kashmir for a meager amount in lieu of war indemnity imposed on Sikh rulers of Punjab. Kashmiri’s were taken unawares; they only heard about it when Sheikh Mohi-ud-Din, the administrator of Kashmir, initially, refused Gulab Singh’s army the entry to Kashmir. Gulab Singh had invested in every Kashmiri, which they had to pay him back through corvee and the multiple tax regimes. More near to our times, while India and Pakistan had to share the resources and assets as per the principles and conditions of the partition, they again bartered, what actually never belonged to them, in lieu of East Punjab rivers, to safe-guard the interests of Punjab. The proverbially poor Kashmiri was again taken unaware.

Prime Minister of Kashmir even congratulated the two countries for enacting an agreement which virtually hampered any water related development in his state.

“The documents, statements, correspondences and newspaper write-ups of the period are witness to the—one single concern, expressed by the leaders concerned, i.e. the welfare of Punjab formers. Nobody denies the genuineness of the concern but at what cost? The whole water issue was considered from the point of view of Punjab. Kashmir, which was a political issue irrespective of the water issue, was only used as a leverage. Right from the day one, the representatives from Punjab formed significant part of the negotiation process. Punjab irrigation ministers, bureaucrats and water experts were consulted, their propositions, apprehensions and demands considered, discussed and incorporated into the proposals sent to the parties concerned. But never, not even indirectly was any Kashmiri connected with this water resolution process. And when the highly discussed, highly hailed and highly propagated Indus Water Treaty was inked, Jammu and Kashmir was the lone loser, taken for granted and dumped. It is only now that Jammu and Kashmir people are becoming aware of what has been done to them.

“The Jhelum (veith in Kashmir) remains simply an aesthetic pleasure to see it pass through Srinagar, its economic value for the valley is negligible. Treaty with a heavy heart offers it only small amount of water. The water oriented development is neither considered feasible nor beyond the limitations set on it by the Treaty.

“More pertinent to mention is the fact that Kashmir was neither the British colony, nor any way a part of India on the eve of its partition. It was, in whatever way
one qualifies it or attributes value to it, a partition of India, not the partition of an independent state under a sovereign—his realitons with his subjects at that particular historic moment notwithstanding. Yes as the riparian states, both India and Pakistan have a right on the water but so has Kashmiri. Where is Kashmir’s right to be pleased? Both the Punjabs remain Punjab was the immediate beneficiary of the treaty. At one stage Pakistan was made to pay seigniorage charges to East Punjab which vehemently fought for its upper riparian rights and claimed the property right on the waters of East Punjab river as vested in it.

“Pakistan also ignored the water property rights on the rivers flowing Administrated Kashmir region on the pretext that the later is not part of Pakistan and hence is unable to decide for it. But Most important dam of Pakistan is on the waters of Azad Kashmir and on its territory but water and the electricity so produced goes to Pakistan, which it sells back to the “AK” on higher prices. “No concession or compensation is made to the administrated part in lieu of the water and the territory, exploited by Pakistan for its own economic gains. Furthermore, there is hardly any genuine consideration for the environment degradation set in by the protect run by and for Pakistan.\(^{74}\)

“The two Kashmir on either side of LoC, need to be provide with special economic package and suitable technical and financial support to help them propely manage their water and emerge as willing benefactors to the down stream regions concerned. Otherwise a Kashmir proverb tells it all: “ghari gut ti meishdi choong”. “Taking a lamp to mosque while leaving on’s home in utter darkness”\(^{75}\).

**Conclusion**

The water resources of Jammu and Kashmir (both sides of LoC) are means to meet the electricity and agriculture demands of the State. The State of J&K is the foremost loser as a result of the Indus Water Treaty as the treaty has surrendered the water resources of the State to India and Pakistan. At the time of signing of the treaty both the countries overlooked the basic human right of the people from politico-economic as well as from legal perspectives. Hence, it is evident that the State of Jammu and

\(^{74}\) Gulshan Majeed, “Indus Water Treaty Dissention and Agreement,” (March 2011).

\(^{75}\) Ibid.
Kashmir, in spite being the upstream area, has been affected due to restrictions placed by the Indus Water Treaty. Therefore, the State has raised a strong voice against the treaty, but no policy-maker from either side has contemplated their move on this issue. At present, power potential in the State has been estimated to be around 20,000 MW, of which only 12 percent has been harnessed so far.

The ongoing power projects in the State are regarded as a core dispute between India and Pakistan, thereby severely affecting the development of the State. Moreover, the harnessed power potential is based on run-of-the-river project, which cannot produce optimum generation. These run-of-the-river projects cannot meet the growing power demands of the State, resulting in shortage of power. Thus, the State is forced to purchase power from outside, for which a major part of the State’s budget gets exhausted, and therefore, it appears to be a serious obstacle for J&K’s economic independence.

To conclude, the Indus Waters Treaty has handicapped the Jammu and Kashmir State to harness the potentialities of this huge resource, as most of the water is going waste or unutilised for want of construction of feasible projects. It is clear that the treaty’s greatest achievement has been the fact that it is the only agreement that withstood Indo-Pak hostility, but on the other hand, it has added to the economic woes of the State of J&K. Hence, it is imperative for both New Delhi and Islamabad to relook at the Indus Water Treaty with proper considerations to the Jammu Kashmir State.