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ABSTRACT

The purpose of this study is to explore the importance of Kalabagh dam in the perspective of Pakistan. In addition, the study observes different views of the residents which cover all four provinces of Pakistan namely, Sindh, Punjab, Khyber PukhtoonKhawa (KPK) and Baluchistan. The importance of Kalabagh dam in Pakistan is related with electricity generation capacity which will meet the country's power requirement. There has some reservation regarding construction of the dam. Sindh province objects that their share of the Indus water will be curtailed as water from the Kalabagh will go to irrigate farmlands in Punjab and Khyber PukhtoonKhawa at their cost. KPK province of Pakistan has concerns that large areas of Nowshera (district of KPK) would be submerged by the dam and even wider areas would suffer from water-logging and salinity. Further, as the water will be stored in Kalabagh dam as proposed Government of Pakistan, it will give water level rise to the city that is about 200 km away from the proposed location. Baluchistan is not directly affected by the dam as such, however, most nationalist Balochis claim the dam an instance of Punjab lording it over the smaller provinces. They have however, not included the dam in any of their state. Punjab needs more water to keep up with the growing population and industrial demands on its agriculture, therefore, the dam at Kalabagh would also supply cheap hydro-electric power to the whole country. The results of the study are of value to both academics and policy makers.

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Introduction

Water has become a source of conflict among many countries of the world. In Pakistan situation appears to be more serious as the federating units are heading towards a riparian war in the next few years if remedial measures are not taken immediately. The present drought in Baluchistan and some parts of Sindh causing deaths and immense miseries of people has brought of the issue of scarcity of water into the lime light (GoP, 1997). A country like Pakistan cannot remain complacent at a time when governments, citizens groups and multinationals all over the world are worried over the threat of a severe water crisis by the end of the first quarter of the new century. A world water shaft in the Netherlands came up with alarming forecasts about future water shortages in many parts of the globe. As bulging populations and growing industrial and agricultural needs push up demand for fresh water all the time (household use of water worldwide will go up by 70 per cent in the next twenty years), water quarrels can spark wider regional and international conflicts. Already, fresh water reserves of a large number of underdeveloped societies are under immense pressure. Many water sources are either drying up or have been polluted beyond rehabilitation. The poorest regions of the world are also the worst hit by this deepening crisis (Abramovitz, 1996). Whereas the developed countries have adequate water conservation, recycling and supply mechanisms to meet most of their needs, countries like Pakistan have yet to take stock of the full extent of the crisis that will soon take its toll.

The Minister for Water and Power in the ousted Nawaz Sharif government Mr. Gohar Ayub Khan, while pleading for construction of Kalabagh Dam in the National Assembly in late

1998 session warned the nation that if immediate steps were not taken to develop our water resources and evolve a prudent water management policy the country may face a worst water crisis leading to a war for water between the various provinces of the country (Khan, 1998). The present drought in many parts of the country especially in Sindh and Baluchistan has confirmed the fears expressed about two years back and awakened the sleeping authorities to the urgency of the problem. The present water crisis is not only a manifestation of the mismanagement in the use of water resources since independence but also a warning of a looming riparian war between the provinces in which the federation could be swept away in the deluge of incompetence, shortsighted, corrupt and self centered policies. All attempts to increase the agricultural produce to feed the teeming millions may fail as much lesser water will be available in the coming years from the present river system as water storage in Tarbella and Mangla Dams would be reduced due to sedimentation. The answer lies in construction of more dams. Unfortunately the two proposed dams KalaBagh and Bhasha have been victims of political controversy for the past over 2 decades. During this period the shortsighted and incompetent authorities could not devise alternative arrangements to the stop and store the colossal waste of water during flood seasons. Belatedly, the real extent of the dreadful damage that drought has wrought upon the people of Baluchistan and interior Sindh is now being officially acknowledged. The number of displaced citizens in Baluchistan is over one million, for whom 35 relief centres in place so far. Amir-ul-Mulk Mengal, the provincial governor, estimates that over two million animals have died. The livestock loss, in monetary terms, runs into billions. Twenty-two of Baluchistan



26 districts — covering 43 per cent of Pakistan's total land mass — have been declared calamity-hit. In Thar, Sindh, 127 deaths have been recorded because of the drought — though he qualifies the number of the dead with the adverb "only" and adds that "the situation is not as bad as being reported in the press". It is inconceivable that the making of the drought disaster could have remained unnoticed through all these years. That it was allowed to turn so bad is unforgivable. To call this disaster a natural calamity is to pass the blame on to fate and condone the criminal apathy of policymakers and local administrative setups (DFID, 1998).

Despite global shortage of water, Pakistan can still be surplus in its water requirement provided the waste of huge water can be checked. According to Economic Survey of Pakistan (2010), Pakistan is most unfortunate to waste 60% of its life saving water in seepage and floods due to chronic and gross water mismanagements. At the same time, it is the victim of repeated wrong planning of its land and water resources to produce food. All this is due to the apathetic and inert attitude of the technocrats, bureaucrats, politicians and the government as no national policy on water development was framed even after signing the Indus Water Accord. It is lamentable that even after 10 years fertile lands under irrigated agriculture in the Indus Basin ruined by water logging and salinity is not recovered. This shows incapability to handle and develop water resources by implementing Integrated Comprehensive Water Management (ICWM). The root of the water problem is the failure of the successive governments and the civic authorities to plan and manage the country's water resources in such a way as to make the optimum use of them. There are certain quirks of nature that cannot be changed but they can be neutralized. For instances, the 140 million acre feet of surface water in Pakistan comes from the snows and glaciers in the mountainous north. But 84 per cent of this flow is concentrated in the five months of summer when the snows melt. This results in floods and a lot of the water flows into the sea. The country's major failure in this sector has been the absence of a policy to build an adequate storage capacity to preserve this water for use in the lean months. Only three major reservoirs have been developed over the years -Mangla, Tarbella and Chashma with a total capacity of 15.7 million acre feet. Even this may be reduced to 10.7 million acre feet by 2020 as 500 million tones of sediment is deposited by the river system every year into these reservoirs (Haider, 1998).

Punjab View Point Punjab needs more water to keep up with the growing population and industrial demands on its agriculture. A dam at Kalabagh would also supply cheap hydro-electric power to the whole country. The annual outflow of water into the Arabian Sea is considered a "waste" in Punjab, which feels that water can be used to irrigate infertile lands. Punjab wants not just Kalabagh, but also two more large dams on the Indus, at Bhasha and Skardu /Katzarah. It feels that the Kalabagh site is the most favorable, compared to the other two, and that it should be built first. Bahalwalpur and Bahawalnagar will get most of the water stored in Kalabagh Dam. On the other hand, Punjab has been severely hit by Kalabagh Dam being not built. In the early 1960s, Pakistan had agreed to a deal with India over the royalty of rivers. That had given royalty of two rivers Satlejand Biyas to India. Since then, the river Ravi, Satlej and Biyas are only used as flood release rivers by India. Pakistan government was allowed and funded to build this dam only because they had agreed such deal with India. Now Pakistan hasn't built the dam

and has also barren-ed a large area of Punjab province by taking out three rivers. Punjab's view is that a dam of above 3GW production can finish all the energy crisis of Pakistan. Overall, it will help Pakistan to grow further as electricity produced by water is cheapest compared to all other resources. Punjab has also agreed not to claim any royalty on generation of resources from Kalabagh dam.

Sindh view Point

Sindh objects that their share of the Indus water will be curtailed as water from the Kalabagh will go to irrigate farmlands in Punjab and Khyber PukhtoonKhawa at their cost. Sindhi people hold that their rights as the lower riparian have precedence according to international water distribution law. The coastal regions of Sindh require a constant flow of water down the Indus into the Arabian Sea so that the flowing water can keep the seawater from intruding inland. Such seawater intrusion would literally turn vast areas of Sindh's coast into an arid saline desert, and destroy Sindh's coastal mangroves. With the construction of dams, such as Mangla Dam and Tarbella Dam across the Indus, Sindhis' have seen the once-mighty Indus turned into a shadow of its former glory downstream of the Kotri Barrage up to Hyderabad. They fear that there simply is not enough water for another large dam across the Indus, let alone The Kalabagh site is located in a highly seismic zone three. near an active fault, and the underlying rocks are likely to contain numerous fractures, causing the reservoir water to seep through the catacomb of fractures and discharge at the lowest point around the reservoir and the Indus river. Damming the Indus has already caused a number of environmental problems that have not yet addressed. Silt deposited in the proposed Kalabagh dam would further curtail the water storage capacity of Manchar Lake and other lakes and of wetlands like Haleji Lake. Former President Musharraf, and other leaders, has promised "iron-clad constitutional guarantees" to ensure that Sindh gets its fair share of water. However, these assurances mean little to most Sindhis, who claim that even the earlier 1991 Indus Water-Sharing Accord, which is a document already guaranteed by the constitutional body, the Council of Common Interests, has been violated, and that Punjab has "stolen" their water.

Khyber PukhtoonKhawa view Point

Punjab has low credibility and doubtful sincerity when it comes to fulfilling promises. It does not stop even if it has to break the constitutional guarantees (at least the current government of Punjab, which is of the Pakistan Muslim League). Stopping of wheat supply at check posts for investigation is one such example (this is not allowed in the Constitution of Pakistan¹. ANP claims that the running of Cheshma-Jhelum link canal and over drawing of water from Tarbella is a common feature. The entire system and canal of Ghazi- Barotha hydro electric project runs in Khyber-Pakhtonkhuwa; however the electricity generating turbines were installed just 500 meters inside Punjab so that the royalty is denied to Khyber Pakhtonkhuwa. While the reservoir will be in the Khyber Pakhtonkhuwa, the dam's electricity-generating turbines will be just across the provincial border in Punjab. Therefore, Punjab would get royalties from the central government in Islamabad for generating electricity[]]. Although, Punjab has also agreed not to claim any royalty on generation of resources from Kalabagh dam. Concerns that large areas Nowshera district would be submerged by the dam and even wider areas would suffer from water-logging and salinity as has

occurred with the Tarbella Dam. As the water will be stored in Kalabagh dam as proposed, that will give water level rise to the city that is about 200 km away from the proposed location.

Baluchistan view Point

Baluchistan is not directly affected by the dam as such. Rather, most nationalist Baloch Sardars claim the dam an instance of Punjab lording it over the smaller provinces. They have however, not included the dam in any of their state social impacts. Community Displacement and Rehabilitation from their very inception the construction of large dams in Pakistan has given rise to major problems in land acquisition, resettlement, rehabilitation and compensation. With regard to each of these issues, the initial attitude towards affected communities was one of dismissal and neglect. However, as more large dams were built (Tarbella, Mangla, Ghazi-Barotha, Chotiari), rising community disaffection, coupled with donor pressure, ostensibly elicited a measure of response. The formal expression of such response is donor inspired resettlement action plans, operational guidelines on involuntary resettlement, environmental impact assessments and environmental monitoring systems. But experience has shown such elaborate fiats to be more honored in the breach than in the observance. There are two related categories of omission. In the first place, the generic need for consultative planning and decision making continues to be disregarded, despite the fact that decisions regarding use of community resources affect them vitally. This is the negative context in which donor injunctions and guidelines are embedded and, hence, predisposed to failure. The evidence validates this premise. Efforts to compensate communities have ended up being diverted to the more powerful and affluent groups who use confidential information for profitable speculation. By the same token, resettlement decisions are arbitrary, giving rise to cultural disorientation and psychological disorders. Also, the government's fiscal constraints preclude the full payments promised. These are some of the signals which detract from recent claims by WAPDA that it plans to construct 20 model and 27 extended villages at an estimated cost of Rs.20 - Rs.25 billion.

Literature Review

The Kalabagh dam was a proposed hydroelectric dam planned to be built on the Indus River by the government of Pakistan. The proposed site for the dam was situated at Kalabagh of Mianwali district of the Punjab province; bordering the Khyber PukhtoonKhawa. The dam project was controversial since its inception. In December 2005, General Perwez Musharraf announced that he would build the dam in the larger interest of Pakistan. In May 26, 2008, Federal Minister for Water and Power, Pakistan, Raja Perwez Ashraf said that the "Kalabagh Dam would not be constructed" and the project has been cancelled He said due to the "opposition from Khyber Pakhtonkhuwa, Sindh and other stakeholders, the project was no longer feasible". However, after the worst flood (2010) in Pakistan, the prime minister of Pakistan, Yousaf Raza Gilani, stated that the devastation of flood would be less if Kalabagh The proposed construction of the Kalabagh dam was built. Dam triggered a bitter controversy among the four provinces of Pakistan, namely Punjab, Sindh, Khyber PukhtoonKhawa, and Baluchistan Punjab has been the only province in favor of the dam, which is the strongest of the four provinces, as usually the government is mainly centralized in it. The other three provinces have expressed dissatisfaction: their provincial assemblies passed unanimous resolutions rejecting the proposed dam.

Hence, the project is still under consideration only. Often Pakistani politicians try to use India as an excuse to explain the mismanagement of water resources. According to WAPDA with increased population, Pakistan is fast heading towards a situation of water shortage. Per capita surface water availability was 5260 cubic meters in 1951, when population was 34 million, which has been reduced to 1038 cubic meters in 2010 when the estimated population is 172 million. The minimum water requirement to being a "water short country" is 1,000 cubic meters. They claim no dam or reservoir can be built without permission and endorsement of the tail ender, i.e., Arabian Sea In the case where the tail ender is not using water, i.e., building a water reservoir, a reservoir can be made upstream. The opposition to Kalabagh dam seems to rest on two planks. The difference on the technical issues stand on the first plank. These issues are that the amount of water required downstream for farming and other uses, against intrusion by the sea and mitigate silt accumulation, effects on water tables and silt accumulation, loss of agricultural and urban land and displacement of people .A deep seated distrust of the federal government expressed unequivocally in different ways, rests on the second plank. In the context of Sindh, their past experience of Tarbella dam, Thal canal ,Chashma Link canal and 1991 water accord are the examples of mistrust over the federal government. Almost all the political parties in Sindh and most in Khyber PukhtoonKhawa are not persuaded that building the proposed reservoir on Indus at Kalabagh would be good for their provinces (Ercelawn and Nauman, 1998). The so called constitutional guarantees being offered carry little weight with the past records of mistrust and questionable and wrongful changes made in the constitution. The threat to go ahead with the Kalabagh dam, without revisiting the issue through public discourse and building a consensus can have far reaching consequences. Sindh is the lower riparian and strongest opponent of KBD. But its case mainly against Punjab is more on a conceptual basis of what Sindh thought to be "theft of water by Punjab" rather than locating an actual incident of theft. Sindh supports its argument by stating that by virtue of its name and history of water rights of the province, Indus River belongs exclusively to Sindh. Therefore, claiming the construction of dams, Tarbella and Mangla and now KBD actions of theft of water at the irrigation cost of Sindh. The objection to Kalabagh in Sindh is widespread. Even political parties of Sindh that are in the central cabinet and are supported by General Musharraf, such as the Mutahida Qaumi Movement, have strongly denounced the dam. Opposition towards Kalabagh Dam is such that PML N's Sindh Chapter also were in unison with the opponents of the Dam and as a result even PML N's leader Mr. Nawaz Sharif, who as the Prime Minister of Pakistan had stated in 1998 that he proposes to build the dam, retracted from his stance and declared that Sindh's view point ought to be respected and no project, however essential, be carried out that weakened Pakistan's Federation. Similarly, the Khyber PukhtoonKhawa has two main objections to the dam, while the reservoir will be in the Khyber Pakhtonkhuwa, the dam's electricity-generating turbines will be just across the provincial border in Punjab. Therefore, Punjab would get royalties from the central government in Islamabad for generating electricity. They concerns that large areas of Nowshera District would be submerged by the dam and even wider areas would suffer from water-logging and salinity as has occurred with the Tarbella Dam. As the water will be stored in Kalabagh dam as proposed,

that will give water level rise to the city that is about 200 km away from the proposed location (IUCN, 1991, 1997).

Most independent analysts believe that the foremost problem with the proposed dam at Kalabagh is one of a "trust deficit between the Punjab on one side and the other three provinces on the other". Ayaz Amir, believes this is due to the frequent coups staged by the Pakistan Army (which is overwhelmingly Punjabi and Pathan in its composition), as well as the Army's extra-constitutional intervention and influence in public sector and civil institutions of the country in general and Sindh in particular (especially in Karachi). This is also due to ethno-nationalists that promote anti-Punjabi sentiments amongst the people. All Pakistanis agree that Pakistan faces a severe water shortage, and that some form of water management must be implemented soon. Many point out that even if work on Kalabagh were to start tomorrow, it would still take at least eight years to complete and commission such a large dam. In the meantime, the water situation would continue to worsen. Smaller dams, barrages, and canals must be built before that, and water conservation techniques introduced. The WAPDA for years repeatedly changed its statistics on the dam, to the point where no-one in Pakistan now believes any of its figures Government of Pakistan formed a technical committee, headed by A. N. G. Abbasi, to study the technical merits of the Kalabagh dam vis-à-vis the other two. The four-volume technical report concluded that Bhasha or Katzarah dam should be built before Kalabagh, further complicating matters. The report also stated that Kalabagh and Bhasha Dams could be considered feasible. The abrupt way in which former President Pervez Musharraf announced the decision to build the dam, overruling the objections of the smaller provinces, had polarised public opinion. On 26 May 2008, Federal Minister for Water and Power of Pakistan Raja Pervez Ashraf said that Kalabagh Dam will not be constructed. He said due to opposition from Khyber Pakhtonkhuwa, Sindh and other stakeholders, the project are no longer feasible. The Prime Minister of Pakistan, Syed Yousuf Raza Gilani announced that the fate of the project would be decided by a plebiscite. The decision came after Pakistan faced extreme power crisis and acute water shortages. The government is currently finding alternative locations for the dam.

Conclusion

To recap, Kalabagh dam is not the clear winner it is projected to be. First, its viability is premised on water availability figures that are highly questionable. Second, the land

constraint precludes substantive increases in cultivable area, additional water notwithstanding. Third, crop yield increases based on additional water do not account for the aggravated water logging and salinity that would result; furthermore, higher doses of water are associated with high input use, which degrades both soil, and water quality. Using existing water more efficiently is clearly a better option. Fourth, hydel energy is not unequivocally cheaper, given the growing propensity to factor in displacement and environmental costs. Also, borrowing costs are likely to be higher as donors have indicated a clear preference for thermal power projects. Fifth, Kalabagh would further exacerbate ecosystem degradation, adding to mangrove and species loss and impoverishing communities, which depend on the ecosystem's resources. Also, as an instrument of flood control Kalabagh is poorly supported by the historical evidence. In view of these facts, the option of implementing a sedimentation management project on Tarbella appears a clear winner on all grounds - financial, economic, social and environmental.

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