



RESEARCH PAPER

China-Pakistan Economic Corridor (CPEC) and Climate Change in Balochistan: Problems and Prospects

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ABSTRACT

The problem of climate change is one of the most defining issues of our time. Both developed and underdeveloped states of the world are equally under its menace. In the last two decades, some of the first-world countries, like China, have taken tremendous steps to minimize their effects on their region. Pakistan, in the year 2022, witnessed an unprecedented flood owing to a massive rainfall that hit its biggest province, Balochistan. Notwithstanding, Pakistan undoubtedly, at this stage of economic stagnation, needs foreign support to overcome such disasters. A qualitative based approach was used to analyse the literature based on the climate change in the perspective of Pakistan and China. For the analysis of the extracted data conceptual analysis was used. The platform of CPEC can be practically utilized by employing Chinese models and measures in Pakistan's most neglected and affected province, Balochistan. The Chinese model of dams in Balochistan will be highly beneficial and helpful not only for flood dismantlement but also for the storage of adequate water in case of any massive drought. This paper sheds light on the theme of how Pakistan can learn from the Chinese model to address the problem of climate change in its most neglected region, Balochistan.

KEYWORDS Balochistan, Climate Change, CPEC

Introduction

Pakistan and China in 2015 agreed to develop a mega project with the name Pak-China Economic Corridor "CPEC" to overcome their socio-economic and strategic challenges in South Asian economic warfare. The project is designed to be fully completed in 2030. The multi-dollar game changer scheme has various roads, railway, and pipeline projects along with numerous industrial zones starting from Kashgar (China) to Gwadar's deep seaport covering a about 2041 kilometers. China's Belt and Road initiative (BRI) is also planning to connect the Central Asian states with the Indian Ocean mainly going through Pakistan-China Economic Corridor CPEC.

Gwadar is considered the backbone of this scheme and its deep seaport in this aspect started working in 2002. Almost half of the CPEC goes through the land of Balochistan, and this historically neglected province will certainly overcome its grievances if this developmental project gets implemented in its true shape and manifestation.

Literature Review

On the subject of recent changes in the patterns of climate Roy (2018) has focused on the massive omission of CO₂ from the industrial sector as the main cause of climate change in different parts of South Asia. Rodo (2003) sketches another picture of deadly climate change by stating that if things run with the same mechanism without taking any precautionary measures, then this globe, especially the South Asian parts, will be unlivable till the end of the 21st century. According Xiaotao (2006) China, apart from the rest of the world, has taken decisive actions to control floods through its developmental projects in the shape of constructing highly bearable dams all over China, which proved successful in the years of drought in 2013 and 2019, respectively.

Results and Discussion

Francis Fukuyama has rightly said that economic prosperity mainly depends on good governance and no state can attain economic prosperity instead of being rich in terms of natural resources, until and unless governing institutions perform proactively (Fukuyama, 2012). The recent wave of climate change in July 2022 has posed serious threats to the entire environmental structure of South Asia, where Pakistan is ranked among the top ten countries highly affected by unexpected droughts, irregular rainfall patterns, massive heat waves and worsening glacier melting complications.

Recent climatic changes are rapid, intensifying, widespread and unprecedented, affecting every region on earth in many ways, making extreme climate events such as heavy precipitation and droughts which is causing long-term impacts on terrestrial, freshwater, and marine ecosystems. Balochistan, in the recent calamity of massive irregular rainfalls, suffered most in the shape of extensive floods and devastations causing deaths, house damage and economic depletion. The extensive emissions of Carbon Dioxide CO₂, Methane CH₄, and Dinitrogen Tetroxide N₂O are mainly responsible for climate change as all these gases influence the climate significantly. Other natural phenomena like volcanic explosions and seismic activities play a key part in environmental degradation (Roy, 2018).

Changing patterns of rainfall has increased settlement problems and food shortage issues. Xavier Rodo, an expert on climate change in Africa, has linked the 2003 climatic change with fluctuations in the normal rotation of the atmosphere and, according to him; such sorts of changes subsequently would be noted in other parts of the world too (Rodo, 2003). Rodo's anticipations later became correct when China was hit by a massive flood in 2020 and the overflow of the Yangtze River resulted in catastrophic losses. A similar situation was witnessed in both Pakistan and India in July 2022.

According to UN report "A population of 33 million, cost 1,600 lives and threatens hundreds of thousands more as a second disaster looms within the first one. Over 2 million homes have been destroyed or damaged, forcing people to live under open skies exposed to threats of dengue, malaria, and the biting cold of the fast-approaching winter. More than 1,500 health and support facilities are badly damaged and unable to respond to the growing needs (UN, 2022).

The Provincial Disaster Management Authority (PDMA) of Balochistan sketches another catastrophic picture of the flood with more causality by stating that "In 34 districts 360,000 people have been affected, including 238 people killed and 106 people injured as of 27 August 2022. More than 500,000 livestock have died are reported in Balochistan province. At least 17,500 houses have been destroyed and another 43,900 houses partially damaged (PDMA, 2022). A lot has been written on CPEC's developmental projects and their plausible effects on the socio- economic development of Balochistan (Muzaffar, Karamat, . Saeed, 2018). However, there is a scarcity of debate and discussion on how this mega-project can fight against ongoing climate change which can possibly generate hurdles in its way towards success and how Pakistan through the platform of CPEC can address the environmental issues like irregular rainfall and droughts in the least developed region like Balochistan.

The effects of climate change on the common residents of Balochistan with comparison to the rest of the people living in the urban localities of the other provinces, is much more terrible and horrible too, as the majority of the livelihood depends on minimal nomadic livestock patterns along with loose mud house construction with highly low per capita income (Malik, 2013).

Apart from developing economic zones, Pakistan and China must work together to develop a comprehensive strategy for the ongoing climatic calamities in Balochistan, which

is a far more important issue that needs to be addressed on urgent grounds and for that, CPEC would be the best platform indeed. Previously, Southern Balochistan with its districts likes Gwadar, Kech, Awaran, Khuzdar and Lasbela had always witnessed flash floods in the months of July and August and, being close to monsoon spheres, these districts had always been in a constant threat of water overflow (Muzaffar, Khan, & Yaseen, 2021). In the Provincial Monsoon Contingency Plan report given by PDMA in 2018, it has been stated that the main reason behind the destruction were small dam bursts which were mainly constructed as delay action dams or check dams (PDMA, 2018). Similarly, in 2022, the small dam bursts constructed near the rural villages and small towns intensified flood water in a huge volume and played an active part in house, roads, and bridge destructions (Afzal, Yaseen, & Muzaffar, 2020).

Massive rainfalls on one hand with drastic droughts on the other in the monsoon season are pretty normal in China. The frequency of occurrence of flood disasters in China is higher than the world average. Chinese since 2003 have been started working on different Flood and drought prevention programs with prime focus, which can be employed in the CPEC's main player Balochistan without much difficulty.

China is one of the most highly developed industrial states working on its environment and climate change policies on serious grounds when it was announced that the top 100 polluted cities of the world belong to India, China, and Pakistan (Rahim, Khan, & Muzaffar, 2018). The Chinese Ministry of Environment and Ecology developed Environmental Protection Bureaux (EPBs) in its most vulnerable constituencies. Meanwhile, China has shown a greater decentralization and flexibility by moving away from a strict, hierarchical, and controlled system of environmental governance which helped it a lot of countering unbalanced floods, rainfall and droughts (Lo & Tang, 1994). Balochistan needs the same sort of Special Economic Zones (SEZs) both on the western and the eastern routes. The Environmental Protection Bureaux's like Chinese model can help the provincial governments to implement environmental laws with the help of local stakeholders and help out provincial PDMA's to counter such unexpected floods with its full zeal and enthusiasm.

The Chinese government have successfully initiated 'From flood control to flood management' trend to not only control flood water through their small dams but to utilize them with the help of their small dams' rural areas (Xiaotao, 2006). Despite the fact that the program is an old one, it's still functioning in its current shape. Some 85,000 reservoirs other than small dams with powerful structures of different sizes have been constructed on the most appropriate locations of different rivers, most of them built mainly for flood control integrated with irrigation and power generation.

The seven most famous rivers of Balochistan, like Dasht River, Hub River, Zhob River, Hingol River, Mula River, Bolan River, Nari River have full potential to be utilized for multiple purposes by the rural and urban populations. However, not any substantial effort was ever tried to be made to manage their water flow and get any valuable input for a profound irrigation and power generating concept.

A Chinese model of "Flood Management" mechanism would certainly be helpful in southern Balochistan if CPEC authorities put this matter on their priority list. Other than flood control it will be helpful in maintaining groundwater level. Interestingly, Balochistan rarely observes massive rainfall during monsoon so the balanced water quantity beneath earth surface can minimize drought possibilities too, which is another major issue of climate change in Balochistan. Interestingly, China is one among those countries who have been constructing large and small dams near all its river tributes. The "World Commission on Dams" WCD, soon after its foundation, raised questions about the Chinese model of Dams, focusing on the number of casualties during monsoon floods. The famous WCD report of 2000 raised widespread hue and cry, but the Chinese did not pay any heed to their observations and continued working on their flood management program. The basic aim of

the WCD report was to provide 26 famous guidelines for governments, donors, policymakers, planners, and dam builders. The plan of these was to gain approval; address existing dams; sustain rivers and livelihoods; recognize entitlements and secure benefits; ensure compliance; and share rivers across boundaries (WCD, 2000).

The Chinese rejected the WCD report on dams' construction but accepted some of their valuable suggestions like reconstructing centuries-old small dams by initiating a successful resettlement program for flood affected which accepted a unanimous fame throughout the developing and developed states (Rogers & Wilmsen, 2020). Small dams in Balochistan need reconstruction according to the latest climatic developments. Small dams in Balochistan need reconstruction according to the latest climatic developments. Most of the dams are of substandard existence, which is even accepted by the provincial government. Interestingly, the dams and bridges constructed by British engineers during the colonial period are still there in their perfect order, successfully flushing out water without any burst or fracture (Wilmsen, 2011). The irrigation department of Balochistan has always been in debate for its poor performance in developing standard irrigation dams. China and Pakistan along with the provincial government of Balochistan can work together to address the dam's performance and their impetus in destructive flooding for which CPEC is the most favorable platform.

Chinese has invested millions in the world renowned dam projects. According to one of the reports given by "International Rivers Network", published in 2012 it was disclosed that China is involved in constructing some 251 dams in 57 different countries of the globe, particularly in Africa and Southeast Asia (Express, 2022). If China can invest millions in world dam projects, then it probably would be best in its interests to invest in small dams of Balochistan too for the successful development of CPEC project. Other than casualties and house damages, dams burst extraordinarily damaged road projects in the entire Balochistan starting from Chaman to Gwadar.

CPEC must pay its attention to address agricultural problems developed owing to climatic change in agrarian areas like Sibbi, Nushki, Mastung Dera Murad Jamali and Ziarat, which are well known for providing famous agricultural products like onion, apples, apricot, grapes, wheat

, cotton and dry fruits etc. In the recent climate change, where half of Balochistan was covered under deadly rainfall, some of the south-eastern provinces are still raging by an extensive continuous drought. Panjgur, Chagai and Washuk are the districts which annually get minimum rainfall both in the winter and monsoon season. Socio-economic development in a barren region like Balochistan needs water resource management programs. China, through its different water resource management programs, especially "Water Demand Management", successfully tackled the effect of continuous droughts on the Chinese agricultural sector. Chinese red lines for saving water were to limit the scale of water exploitation, to improve efficiency of water usage in felids under government surveillance and to curb water pollution (IRN, 2010).

Conclusion

CPEC decision makers must think about the development of the social sector in Balochistan on a priority basis. The more the social sector and problems of the indigenous people are solved, the more CPEC economic zones in Balochistan would bring economic and social prosperity. Pakistan can learn a lot from the Chinese examples of "Environmental Protection Bureaux" and "Water Management Resource" programs to decrease the effects of recent ecological and environmental imbalances. Moreover, on the other hand, Pakistan also must play its serious role in understanding the menace of climate change and its aftermaths, which can revise them at any time. Corruption and embezzlement must be

countered with an authoritative accountability process so that the foreign investments will bring economic and social prosperity.

Recommendations

This paper sheds light on the theme of how Pakistan can learn from the Chinese model to address the problem of climate change in its most neglected region, Balochistan. This paper recommends the government of the Pakistan to form a committee of experts where the better analysed the Chinese model and find a way to properly implants.

References

- Afzal, N., Yaseen, Z., & Muzaffar, M. (2020). China and India: On the Edge of Water Dispute and Cooperation, *Journal of Arts and Social Sciences*, 7 (2), 231-244
- Govt to take action on substandard dams, roads. (2022, November 26). *Express, Tribune*
- Fukuyama, F. (2012). *The Origins of Political Order*. Straus and Giroux.
- IRN. (2010). *China's global role*. International Rivers Network
- Lo, C. W., & Tang, S. (1994). Institutional contexts of environmental management: Water pollution control in Guangzhou, China. *Public Administration and Development*, 14(1), 53-64
- Malik, M. (2013). *Balochistan Conundrum* . Poorab Academy.
- Muzaffar, M., Karamat, S. Saeed, K. (2018). Balochistan Insurgency: Causes and Prospects, *Orient Research Journal of Social Sciences*, 3 (I), 112-128
- Muzaffar, M., Khan, I., & Yaseen, Z. (2021). Issues and Conflicts in Balochistan: Implications for Pakistan, *Journal of Political Studies*, 28 (1), 43-54
- Rahim, N., Khan, A. M., & Muzaffar, M. (2018). Problems and Prospects of CPEC for Economic Development and Regional Integration. *Global Economic Review*, III (I), 21-30
- PDMA. (2018). *Provincial Monsoon Contingency Plan Report 2018*.
- PDMA. (2022). *Balochistan Rapid Needs Assessment* .
- Rodo, X. (2003). *Global Climate Current Research and Uncertainties in the Climate System*. University of Barcelona.
- Rogers, S., & Wilmsen, B. (2020). Towards a critical geography of resettlement. *Progress in Human Geography*, 44(2), 256-275
- Roy. (2018). *Role of "Natural factors" On Recent Climate Change Underestimated*. Science Daily.
- UN. (2022). *Joint press release report by Government of Pakistan and United Nations*.
- WCD. (2000). *Dams and development: Report on a new framework for decision making*.
- Wilmsen, B. (2011). Progress, problems, and prospects of dam-induced displacement and resettlement in China. *China Information*, 25(2), 139-164.
- Xiaotao, C. (2006). Recent progress in flood management in China. *Irrigation and Drainage*, 55(S1), S75-S82