

CLIMATE CHANGE AND SECURITY OF PAKISTAN

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ABSTRACT

Climate change is one of the biggest challenges of the twenty first century. It is becoming an issue of High Politics in many countries. Pakistan is one of the top ten countries which is most vulnerable to climate change related risks. The purpose of this research is to investigate the threats to the security of Pakistan caused by Climate Change. This research finds out that climate change is a serious threat to the security of Pakistan by exacerbating the issues like water scarcity, food security, health problems, internal migrations and conflict over natural resources. The research finds out that Climate change and security has a closer relation and that Pakistan is facing both internal and external security threats induced by climate change. Furthermore, conflict could occur between Pakistan and its neighbor countries particularly India and Afghanistan, on resources which are declining due to global warming and climate variation. This is qualitative research, and the data has been collected mostly, from secondary sources. It has answered the question like how climate change can be a threat to Pakistan security and that how it can destabilize the country internally and externally.

Introduction:

Climate change is a reality, and no one can deny it. It has challenged both traditional and non-traditional implications for the security of any country, Pakistan is a developing state and ranks among the most vulnerable countries as result of climate change. Climate change has both external and internal security threats for Pakistan. It means that it will decrease the availability of the resources, which are declining due to climate change. The resources, like water, food, and energy may lead to conflict both internally as well as externally. However, in the domestic context water distribution policy exist between the provinces but this may lead to tension between the provinces, because the water resources are declining. However, it is unfair to ignore the fact that grievances exist between the provinces on the distribution of water particularly between Punjab and Sindh. In addition to that climate change related threat may have external security implications for Pakistan. For Example, the issue over Indus's water, may cause conflict between India and Pakistan (Khan e. a., 2016).



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Stability is the primary goal of national security. Every country wants stability inside its territory and among nations. When instability increases, security concern also increases. Many states become ineffective in case of these changes and this has consequences like the increase in extremism in case of weak states. Climate change induces instability which leads us toward the connections between security and climate change. Pakistan is seriously facing the threat of climate change. Climate change is a harbinger of negative and worse impacts on the security of Pakistan. Societies undergo stress or it may collapse, as a result of significant change in climate and the degradation of the available resources (CNA, 2007). Some of the stable regions of the world, like USA and Europe may also be influenced by climate change. For example, the people who migrate from these countries as a result of climate and other changes may cause tension in these countries. Furthermore, the global challenges of the coming years are climate change, national security and the energy crisis. Therefore, it is important to coordinate the consequences of climate change on national security into security policies and defense strategies. Hence the purposes of the national's climate change policy should be to mitigate the effects of the hazards and to adapt to those effects which cannot be controlled (ibid. pp.7).

It is therefore, become obligatory to formulate a detailed and an inclusive policy which can cover all the dimensions of climate change. The Government of Pakistan, for the first time published a Comprehensive and well-articulated National Security Policy documents. The policy contains both Traditional and Non-traditional security threats to the security of Pakistan. The policy document has intelligently mentioned the objective, priorities, and goals which the country wants to achieve in the future and to protect the country. The most important aspect of the policy is that it is citizen-centric. The ultimate and basic purpose of the security policy is to safeguard, the security, dignity, safety, and prosperity of the citizens of Pakistan. The objective of the policy is to strengthen the defense of the country and to defend the integrity of Pakistan at any cost. The first priority of the policy is achieved economic prosperity and to make the country economically independent (NSP, 2022). The policy documents have included for the first time, human security in its priorities and national security objectives. The issue of climate change has also been discussed in the policy. Food security, water scarcity, population growth and health security has been particularly discussed. The water security is important because most of the rivers in Pakistan, has source in another country. It further exacerbates the challenges of National Security and the sovereignty of Pakistan. In addition to that, rainfall which is the source of water, has also been affected by climate change (ibid. pp. 44-45).

Pakistan is a hard country. It is tougher than what it looks. It is a country which is divided internally. It is economically weak. The society is disorganized, corrupt, and violent. Besides this, the country is facing a strong wave of extremism and terrorism. But, contrary to all these challenges and problems the country is moving on. The country has passed through many hardships but has survived. The country has modern universities, motorways, strong and disciplined army, and good bureaucracy. Above all, it is a nuclear state. It has successfully overseen many problems (Lieven, 2012). The only challenge which can undo Pakistan and is a threat to the survival of a country is Climate change. If the floods and the disasters caused by climate change, continued with the same pace, as it happened in 2010, then Pakistan will not survive as a state and a society. Climate change is not only a problem, faced by Pakistan, but many countries in the world have the same future and concerns. The floods which are the impact of climate change, destroyed the national infrastructure of Pakistan and put the crippling economy of the country into further trouble (Lieven, 2012, pp. 3-5)

Pakistan is a very populous country. It is the sixth largest country with respect to population. Population growth is a peril, and it is increasing the burden on the scarce resources of the country. According to the census, conducted in 2017, by Pakistan Bureau of Statistics, the population of Pakistan is 207.68 million. The population growth rate, from 1998 to 2017 is 2.40% (Pakistan Bureau of Statistics, 2022). According to the United Nations Department of Economics and Social Affairs 2019 report, it is expected that the population of Pakistan could

reach 403 million by the year 2050. The report further says that by 2050, more than half of the population will be living in only nine countries and Pakistan is one of them. Earlier the rank of Pakistan was 8th and in the new report it has been ranked as the 5th most populated country in the world (UN, 2019).

According to Long term climate risk index (CRI), developed by German watch, Pakistan is the 5th most effected country by climate related disaster, from 1999 to 2018. The major damages worldwide, in 2018, were caused by heat wave. If the global temperature increases by 2 degrees centigrade as compared to the preindustrial era, then the chances of occurrence of heat waves increases. Means that heat wave may occur every year. Even if the temperature increased 1.5-degree centigrade in the coming years, there is probability that heat wave may occur after every two or three years. The countries which are under serious threat of climate change is developing countries. Out of the ten countries which are mostly affected by weather events, seven is developing countries. Climate change caused the death of 495000 people from 1999 to 2018 and 3.54 trillion us dollar losses. Extreme weather events is not the only problem which is caused by climate change, but it is also causing desertification and the degradation of fertile land.it is also a reason behind the biodiversity loss (Eckstein, Künzel, Schäfer, & Wings, 2020). It is important to note that the share of Pakistan in carbon emission is very less. It is less industrialized country. But unfortunately, it is one of the top ten countries, badly effected by climate change. Pakistan has crippling economy. A loss of 5 to 6 percent happens to the GDP every year, due to climate change. Environmental and ecological problems is reality particularly in case of Pakistan. A frightening and dreadful future is awaiting the country. Consequently, strong steps are necessary to manage and mitigate the losses caused by climate change. Therefore, a billion-tree tsunami was launched to control global warming because Pakistan has very less area of land covered by forest. The earth is heading toward warming weather and the same is happening in Pakistan. Therefore, the government should implement policies which can reduce carbon emission and a focus on use of renewable energy (Saeed, 2021).

As discussed earlier that Pakistan contribute very less to the greenhouse gas or carbon emission but it is among the threatened countries from global warming, particularly the cities like Karachi, Faisalabad, and Lahore. It has ranked 137 with respect to carbon emission's share in the greenhouse gases and its hare in GHG production is 0.4 percent. However, it is one of the top ten most effected countries, from climate change. From 2010 to 2012, 3000 people were killed by floods alone. In the same period, the loss to the economy was calculated as high as 16 billion US Dollar. While keeping all these in mind, the government of Pakistan, signed the Paris Climate Chang Bill in 2016 (IPRI, 2016). It seems that, in the coming years, Pakistan will be a typical case suffered from calamities and vulnerabilities caused by climate change. It has caused devastation and havoc in the country. The nation and the strong army have defeated the curse of terrorism. However, climate change is a challenge of different nature. Therefore, there is a need for building new capacities and new kind of training to fight with the cause of environmental degradation. It needs a new kind of policies and resources to manage the crisis. It is incomprehensible to forecast the level of destruction caused by extreme weather conditions particularly for a country like Pakistan, which has lack of resources and expert knowledge. This was the reason that millions of homes were destroyed by 2010 floods and more than twenty million people were affected by these floods. Global warming is a non-traditional threat therefore it is more alarming than traditional security threat. Ecological Security is gaining importance and it is difficult to deal with it unless strict action is taken by the state (Shah, Akhtar, & Bibi, 2021). It is essential to mainstream the discourse on climate change in Pakistan. People are less aware about the curse of climate change. The mean temperature in Pakistan has increased from 0.5 degree centigrade and the prediction is that the temperature will further increase till the end of 21st century. Baluchistan, province which already facing problems like poverty and insurgency is severely exposed to climate change. It will add to the problems of the poverty-stricken area. It is also facing sever water shortages. Moreover, the province, Punjab which is the food basket of

Pakistan, is the second most endangered area, facing the threats posed by climate change. Water level is declining in the country. Food is becoming rare. Disease like, heart attack, cholera, pneumonia, and other disease which related to malnutrition who caused by increasing heat which is further encouraged by climate change. It is therefore urgent to mainstream the discourse on climate change. The more the people get awareness about the problem, the more they will take care of the resources (Afzal & Akhtar , 2021).

Climate change is more serious threat to the sovereignty of Pakistan. It is such kind of threat which cannot be managed in a traditional way. Pakistan has fought a long war with terrorism. It has maneuvered the surge of terrorism. A number of institutions and financial resources has been allocated in national budget for defeating the wave of terrorism. However, by comparing, climate change and terrorism, it is clear that climate change has proved costlier for the country. Climate change has caused 4-billion-dollar loss on average basis per every year, from 1994 to 2013. Contrary to this, terrorism has caused one billion dollars to national economy, in 2012. The economy of Pakistan is in abysmal condition. The country foreign policy is in crisis, and the reason is the weak economy. Climate change is adding into the economic worries of the country. In other terms, it is intimidating the security of the country. Furthermore, the temperature is rising and the prediction that by 2040, the temperature will increase 0.5 degree. This temperature loss will cause 8-10 percent loss to the crops of Pakistan (Rehman, 2015).

It is important to be noted that the impact of climate change is uneven across the world. It is affecting variously geographical region more and some region is less exposed to climate changes related changes. The economic level of a country and its development is also a factor which is important in dealing with it because the developed country can easily manage the crisis while the hazards of climate change is further burden on weak economies. Keeping this context in mind, Pakistan is a developing country. It has weak economy and poor health indicators (Malik, Awan, & Khan, 2012). There are three important points which is essential to be remembered, while looking over the vulnerabilities of Pakistan, due to climate change. The first one is that Pakistan is dependent on agriculture for generating revenue as well as a source of food. We know that agriculture and crops are vulnerable to the impacts of climate change, in addition to the fact that people already have little access to food and major portion of the population is suffering from malnutrition. The three major crops which will be severely diminished by climate change is rice, maize, and wheat. The main food of the people of Pakistan is wheat and rice. Secondly, Pakistan is less developed technologically and the timely prediction of climatic events is difficult. This is another problem in the context of Pakistan. Thirdly, the people are poor, and it is difficult for them to deal with the effects of climate change. Lack of adequate health facilities, weak socioeconomic indicators, disable infrastructure, and the weak capacity of state is making the issue of climate change further problematic (ibid.pp.2).

Climate Change Policy of Pakistan

The national climate change policy was launched in 2012 while keeping in mind the terrible consequences of climate change. This policy addresses the issues which are caused by climate change which may disrupt the future life of the people of Pakistan directly or indirectly. The policy was updated in 2021 as it was decided that it will be updated after every five years.

Goal of the Policy

The goal of the policy is to mainstream the issue of climate change in the economic and the social sector of the country and to make the country climate resilient.

Objectives of the policy

The objective of this policy is,

- to integrate climate change policy with other polices,
- to achieve sustained economic growth in an era of Climate change
- To strengthen the coordination among various departments and inter-ministerial decision making process.
- To ensure food and water security and to enhance awareness about climate change.

- To enhance and improve the institutional capacity and skills of the pertinent stakeholders along with increasing awareness.
- To encourage and motivate the public and private stakeholder for investment purposes and adaptation measures.
- To effectively use the opportunities with special focus on financial funds, available both internationally and nationally.
- To ensure food security of the country along with water and energy security.
- To minimize the risk of the disastrous events like floods, droughts and storms, as a result of climate change.
- And to conserve the natural resources and the conservation of sustainability as well as to support and motivate the private sector to invest in the mitigation process (National Climate Change Policy, 2012).

The policy was updated in 2021 to modify it according to the new challenges and the commitment which was made that it will be renewed after every five years.

Critical Analysis of the Climate Change Policy

The policy has comprehensively discussed the areas which are threatened by climate change. For example, water resources, agriculture and livestock, human security, forestry, biodiversity and other vulnerable parts of the ecosystem. It is very important because the country has national policy of climate change. It has established a ministry of climate change. The Lahore high court, has established a commission which will supervise the implementation of the climate change policy. While keeping in view the challenges of climate change, there is a need for many new actions and to mainstream the policy of climate change. There is a problem of lack of reliable data about the losses of climate change, for example to the national GDP (Abas, 2020). The changes caused by climate change is a threat to Pakistan security and the country has poor response and weak capacity to manage and adapt the crisis. However, the policy has proposed fruitful suggestion for promotion of institutional and human capacities for timely planning of the environmental changes pushed by climate variation. Citizen participation and engagement as well as input from all the stakeholders, is essential (Mumtaz, The National Climate Change Policy of Pakistan: An Evaluation of Its Impacts on Institutional Change, 2018).

The implementation of any policy is difficult as well as important for the success of any policy to realize the desired objectives. Therefore, for the proper implementation and for ensuring practical step, the climate change act was passed in 2017. Further institution like, Pakistan Climate Change Council, which is chaired by prime minister or person appointed by him, were established. The Pakistan Climate Change Authority is another contribution institution which is independent and autonomously function and composed of academicians, scientists, industrialists, agriculturists and many other retired as well as servant government servants. The Pakistan Climate Change Fund is another important institution (ibid.pp.533). There are also gaps in the policy and its implementation. The government has focused on the mitigation process like implanting trees and the idea of use of electric vehicles. These are important and crucial initiatives but the need for adaptation to the climate change is still waiting for full attention of the government. For example, the realization of the climate change smart agriculture program, which was announced in 2020, is still in the planning stages, despite the availability of the required fund (Ramay S. , 2021). There is a need for investment in research and development in the area of climate change. This is the side of the problem which has been paid little attention by the government. The suggestion is that the research is important in two categories, soft research, and hard research. The area of interest of soft research should be projection, modeling, impact study and the policy framework etc. The focus of the hard research should be on the development of the required technology, new seed, and species. It demands, investment I educational institutions particularly the higher education institutions. Beside this, the social engagement and participation is to be strengthen and that consultation process is important to collect all the relevant knowledge about climate change (Ramay S. , 2021).

Pakistan has climate change policies at province level. However, it has been observed that there is little coordination between the provinces. After, 18th amendment, the provinces are responsible for the implementation of National Climate Change Policy. It is therefore, important to develop a strong coordination among the provinces for the implementation of the climate change policy. Beside this, it is also crucial to construct an awareness about climate change, which become the responsibility of leadership. The role of ministry of climate change at federal level cannot be ignored and the coordination between the ministry and the provinces can help in the implementation of the climate change policy. The guidance and support of the ministry is important in steering the national climate change policy (Mumtaz & Ali, 2019).

National Environmental Change Policy 2005

The national environmental change policy was adapted in 2005 by government of Pakistan with the objectives to conserve the environment, restore it and make the management of resources efficient. To integrate the issue of environmental changes in policy making and planning process. Furthermore, to build the capacity of government agencies and other such authorities for improving the process of environmental management, and to meet the international standard while keeping in mind the national goals, in addition to creating mass awareness and community mobilization. The goal of the policy is to improve the life of the citizens of Pakistan through sustainable development by conserving, managing and restoring the environment. It is a comprehensive policy and cover all essential sector like, water availability and management, maintaining air quality and noise control, waste management, forestry, biodiversity and climate change along with ozone depletion. Similarly, it also addresses the energy efficiency, agriculture and livestock. It also discusses the relation of environment with other variables like poverty, health, population, gender and trade. For the implementation of policy, a committee of would be established at the federal level (National Environmental Policy, 2005).

Initiatives taken by government of Pakistan to control climate change

On the face of such alarming condition and hazardous effects, the responsibilities of the government of Pakistan enhances to take practical steps and mitigating measures, to make the country climate resilient. Therefore, various initiatives have been taken by government of Pakistan to contain the menace of climate change and to protect the environment and natural resources from it danger. National Adaptation Plan (NAP) was started which provide helpful mechanism for adapting to the risks of climate change, with the purpose of formulating comprehensive and extensive medium and long term plans for integration of adaptation plans in the national climate change policy. Nature based solution and ecosystem based adaption strategies were devised under the NAP. Furthermore, Ten Billion Tree Tsunami Project was launched by Khyber Pakhtunkhwa government to implant trees so that reforestation is ensured. This program was latterly extended to the whole Pakistan by federal government of Pakistan. It will protect the atmospheric health along with reducing the effect of greenhouse gases, decreasing the intensity of flooding and saving the erosion of land. Climate resilient policies are under process to make the populated cities climate resilient and to construct such building and infrastructure which can compete the climatic conditions. Moreover, the government of Pakistan started Water and Sanitation Hygiene (WASH) program to protect water resources and safety of sanitation system for hygienic purposes. The commitment for creating an environment which is suitable for water and sanitation was further strengthened under the Clean Green Pakistan Movement in 2018. The ministry of climate change is an important ministry which formulate policies, set standard, make reports and coordinate national, regional and international commitments. Climate change is also a great threat to our cities. Therefore a Pakistan Climate Resilient Urban Policy Framework is under working in the ministry of climate change and its purpose is make the cities and urban areas of Pakistan in such a way that it could sustain the disastrous impacts of climate change (Pakistan Economic Survey, 2021).

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