

## **Environmental Degradation: A Threat to Pakistan's National Security**

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### **Abstract**

Pakistan is facing significant environmental challenges that pose a direct threat to its national security. This paper examines the interplay between environmental degradation and national security in Pakistan. The degradation of natural resources such as water, land, and forests, exacerbated by factors like climate change, population growth, and unsustainable development practices, has severe implications for Pakistan's stability and security.

The paper explores how water scarcity, exacerbated by climate change and mismanagement, is leading to conflicts over water resources within the country and with neighboring states. Furthermore, deforestation and soil erosion contribute to reduced agricultural productivity, which can lead to food insecurity and economic instability.

Additionally, the impact of environmental degradation on public health, particularly through air and water pollution, poses serious challenges to Pakistan's human security. The paper discusses how these environmental stressors can exacerbate existing social and political tensions, potentially leading to internal conflicts and migration.

In conclusion, the paper emphasizes the urgent need for comprehensive environmental policies and sustainable development strategies to mitigate the impacts of environmental degradation on Pakistan's national security. Addressing these issues requires international cooperation, innovative technologies, and proactive governance to ensure a more secure and sustainable future for Pakistan.

**Key Words:** environmental challenges, Pakistan, national security, sustainable development, climate change.

## Introduction

The rapid climate change around the world poses many threats to the sustainability of human race today. Environmental degradation caused by the climate change has some serious repercussions on the security of Pakistan (Mukhtar et al., 2019). The threats that can contribute to the national security of Pakistan includes, persecution, displacement of population, scarcity of resources, inter-provincial differences, and poverty (Khan, 2019). Deforestation rise in sea level, urban migration, unusual monsoon cycles, heat waves, soil erosion results in socioeconomic deprivations, poverty and enhance the vulnerabilities of the conflict with India over the water sources. (Abbas et al., 2020; Ahmed et al., 2015; Alam, 2010; Baloch et al., 2018; Mukhtar et al., 2019; Vaughn, 2010). Traditionally, Pakistan's national security paradigm is limited to external threat and largely centered upon its defense capabilities. However, the spreading awareness around the world and stress upon to broaden the security paradigm to espouse the environmental security in mainstream discourse of national security has gained the attention of the political elites of many countries (Brown, 1986). Along with traditional security threat perception Pakistan also faces the non-traditional security threats such as climate change (Sahibzada, 1993). In the backdrop of environmental degradation effects on various sectors of Pakistan's sustainability, the national security paradigm needs to be broadened. The current administration of Imran Khan has taken the initiative to broaden its security paradigm (Siddiqui, 2021). PM Khan specifically mentioned that the national security of Pakistan doesn't unlike the past only confined to the strength of arm forces, the challenges like food security, climate change and are also the deep concern for Pakistan's national security. (Siddiqui, 2021) Pakistan has also committed to the vision UNO to effectively meet the challenges of environmental degradation. UN Secretary General Antonio Guterres during his visit to Pakistan remarked about the Pakistan's efforts regarding climate change "Like all developing countries, Pakistan has contributed little to the problem yet faces disproportionate vulnerability because of it. In the past decade, Pakistan has lost some 10,000 lives to climate-related disasters, including 1,200 due to a terrible heatwave in Karachi in 2015. The Indus valley is vulnerable to flooding and coastal communities face the prospect of being swamped by rising sea levels" (Dawn, 2020; UNO, 2020). He also appreciated the Pakistan's progress in adopting the UN-SDGs goals in his speech "Pakistan has embraced the sustainable development goals (SDGs) from the start. Back in 2016, Pakistan was among the first nations to integrate

the SDGs into its national development agenda and recognize them. In 2018, Pakistan launched the national SDG framework to priorities and localize the goals throughout the country”(Dawn, 2020; UNO, 2020). This research primarily focuses on the environmental degradation in Pakistan and how it poses threat to national security of Pakistan. Subsequently, what measure Pakistan has adopted to combat the climate change threats. To what extent Pakistan has been successful in its endeavors to securitize the environmental issues.

### **Statement of the Problem**

Pakistan since its inception faces many security challenges emanating from its Eastern and North-Western border from India and Afghanistan respectively. Pakistan’s weak status being a nascent state at the time to formative years faced numerous challenges such ethnic, economic, and administrative challenges compounded with the political instability. A country encountered with such challenges with the constant threat to its existence compelled the political elites to adopt the strict security measures to safeguard its borders. The popular belief in the nation-states system to enhance its military capability can be observed in Pakistan in its classical context of realism. Furthermore, Pakistan also went on to fight the US-led war on terror which cost Pakistan in both economic and civilian loss terms. The threat of terrorism and its sovereignty further exacerbated the security situation in Pakistan. However, Pakistan dealt with all these challenges quite satisfactorily if not completely till to date. The research on this subject have vastly covered the conventional security paradigm of Pakistan using these variables. The threat of climate change and its spillover effects on the national security has not been the focus of mainstream academia in Pakistan. Environmental degradation caused by climate change and its threat to national security is highly problematic for the researchers and think tanks across Pakistan. Therefore, the motivation behind this study is to contribute in the niche of contemporary affairs of the Pakistan’s topmost concerns.

### **Significance of the Study**

This research analyzes the environmental degradation in Pakistan comprehensively and its effects on Pakistan’s national security. Thus, clarifies its significance by adding in the literature to the much-debated topic of today. The study also introduces other dimension in which further research can be carried. For instance, the food security, heavy monsoon, and rise in temperature and its burden on Pakistan’s economy etc. However, this research gives an overview of the degradation and its effect on national

security and how they are intrinsically linked with each other to the concern of Pakistan's security paradigm.

### **Objective of the Study**

The primary objective of the study is to analyze the environmental effects on security using different perspectives of sustainability measures Pakistan has adopted to combat the climate change. An effort has been made to understand the invisible connection of the climate change and national security. Traditionally, the national security has always been perceived from narrow spectrum only in form of external threats and military point of view. So, one of the objectives is to ponder upon the realization to broaden the spectrum so that it can effectively be handled by taking the sustainability measures.

### **Research Questions**

- 1. What are the Environmental Degradation effects in Pakistan?**
- 2. How Environmental Degradation poses threat to the National Security of Pakistan?**
- 3. What Measures Pakistan has Adapted to Mitigate the Environmental Degradation?**

### **Methodology**

The research has been conducted by using the Qualitative method. It is an academic research and in the best resources available, the qualitative method suits the design of my study. Therefore, the qualitative/descriptive method has been adopted to frame the study. Data has been collected through both primary and secondary sources. Primary data includes the government reports and official documents, speeches and graphs and charts. Secondary data has been collected from, news magazines, books, journals, news articles etc.

### **Organization of the Study**

#### **Introduction**

An overview of the study including the research methodology, data collection, statement of the problem, significance of the study and research questions have been compiled in this chapter. Moreover, this chapter also includes the organization of the study.

#### **Literature Review**

A thematic review of the literature to find the gap and to comprehend the already done research around environmental degradation and its implications on the Pakistan's

security has been conducted in this chapter. The literature review is then followed by a theme according to the chosen topic of the study. Firstly, it reviews the environmental degradation in the world and in Pakistan and how like it is going to be security concern for Pakistan. Secondly, how it becomes the threat to the Pakistan's national security.

### **Theoretical Framework**

The research which has already been conducted around this topic and to find the gap by applying the theory of Environmental Security. This helps to limit the study and contextualize it in the environmental security and traditional national security paradigm. For which the environmental Security theory has been applied to conduct the study.

### **Findings/ Results**

It addresses the research questions of the study. Environmental degradations sever effects in Pakistan. This chapter analyzes the degradations on Pakistan's environment, climate, sea level, monsoon cycle, water scarcity, food security and human security of Pakistan. Lastly, it will deal with the problem that how these environmental problems have the potential to threat the national security of Pakistan. The chapter has been prepared under following sub-headings.

- 1. Environmental Degradation Effects in Pakistan**
- 2. Threat Assessment of National Security**
- 3. Adaptation Measures in Pakistan**

### **Conclusion & Recommendations**

An overview of the discussion and findings of the study with the final remarks on the chosen topic is the subject of this chapter. Finally, keeping in view the findings and adaptation measures, the study attempts to fill the gap and suggests the measures which should be taken to secure the environment and mitigate its effects by recommending with some key points.

### **Literature Review**

Environmental degradation has become the top-priority in the non-governmental and governmental organizations when it comes to global policy making notes Mukund G Untawale in his paper.(Untawale, 1990) Anathana Duraiappah analyzes in her paper the various links between poverty and environmental degradation and concludes that the failure of institutional and market failure causes the unsustainable activities.(Duraiappah, 1996) James K. Boyce in his paper presents two types of

hypothesis about the environmental degradation that this degradation process is directly linked with the inequality of the wealth in the world and subsequently surfaces in the form of a winner and the loser in chasing the net benefit and loss respectively.(Boyce, 1994) Similarly, Jingyi Wang and Kangyin Dong traces out the origins of the environmental degradation in Africa and concludes that Sub Saharan African countries environmental degradation is caused by the socioeconomic deprivations of the inhabitants.(Wang & Dong, 2019). K Warner (Hamza et al., 1993) found that the climate change has radical change upon the environmental degradation which is directly linked with the socio-economic conditions and will trigger the internal displacement. Reuveny in political geography observed that the developing countries are more exposed to the threats of food security, health, degradation of land and water resources.(Reuveny, 2007) Moreover, the research which establishes the connection between humanitarian crisis and environmental changes includes myriad aspects related to the migration, armed conflict, geography and refugees, health consequences and social conflict.(Black, 1993; Change, 1997; Conflict, 2016; Donohoe, 2003; Hamza et al., 1993; Martin et al., 2015; Raleigh & Geography, 2007; Urdal, 2005) However, this research aims to review the literature which covers the environmental degradation and its effects in Pakistan which could endanger the national security. From the perspective of Environmental Degradation, a handful of research covers the overall degradational effects in South Asia guided by the international reports on the region of UN and IPPPC reports.(Kabir & Hossain, 2018; Khan, 2019; Rahman & Accounting, 2014; Sabir & Qayyum, 2020; Wilson, 2000)

For instance Tanjina Hasnat and fellows notes that Pakistan faces the environmental degradation effects such as rise in sea level, droughts and glacial meltdown.(Kabir & Hossain, 2018). Environment Kuznets Curve (EKC) applied for Pakistan found the connection among economic growth, energy consumption, trade openness and population which results in the deforestation in a long run economic growth.(Ahmed et al., 2015) A study which indicates the urbanization trend in Pakistan from 1972 to 2013 which is linked to the carbon dioxide emissions.(Baloch et al., 2018; Hamza et al., 1993) These climatic change have implications for the national security of the states, John Barnett argues that since the end of the cold war the change in the global environment have impacts on the social and ecological systems, therefore is considered a security issue.(Barnett, 2003) However, Deblako, ,Campbell, Delby and Simmons argue that the need for the securitization stems from the need for a new justification of

the national security institutions.(Campbell, 1998; G. Dabelko, 1997; G. D. Dabelko & Dabelko, 1995; Deudney & Matthew, 1999) While, Mayer, Kaplan and Homer-Dixon's research identifies that the environmental change can intensify the conflicts as it was interpreted in 20<sup>th</sup> century about the nation security concerns.(Kaplan, 1994; Myers, 1987; Percival & Homer-Dixon, 1996) From the security standpoint, it largely depends upon the factor associated with its assessment in relation to the vulnerable referent objects, these factors are 'risk of exposure', 'susceptibility to loss', ' and capacity to recover'.(Barnett, 2003, p. 2) In this regard the 'vulnerable entities' are attached to security which includes 'national security', ' human security', ' financial security' and 'home security'.(Barnett, 2003, p. 2) which Weaver argues that 'securitizing these vulnerable referent objects are linked to political decision.(Wæver, 1993) Now taking all these above mentioned referent objects in case of Pakistan's national security concern regarding environmental degradation will assess the implications for the traditional security paradigm of Pakistan with the rapid change of climate change. Pakistan's geographical position and its usual climate is prone to the climate change effects as it is mostly area is arid and semi-arid and ultimately faces the huge risks of variations in monsoon cycles, droughts and floods due to which Pakistan's energy, food and water security are in perpetual threat.(Rasul et al., 2012) As Pakistan is confronted with multiple challenges at various fronts such as devastated by natural calamities, energy crisis, and financial instability, therefore, Maria Syed in her paper argues that Pakistan's traditional security paradigm is unable to deal with such threats and suggests to adopt the human security concept.(Syed, 2014) Similarly the studies (Farooqi et al., 2005; Hamza et al., 1993; Iqbal & Arif, 2010; Malik et al., 2012; Rana, 2018) also map out the concerns in energy, food and human security. Pakistan has been give the 116<sup>th</sup> rand out of 170 countries in the index of vulnerability given by Maplecroft.(Aslam Khan et al., 2016). The sixth assessment report of the Intergovernmental Panel on Climate change (IPCC) is being reviewed currently, however, according to the fifth IPCC report Pakistan lies in the region where temperature is likely to be increased higher than other in comparison to other regions.(Aslam Khan et al., 2016). However, Pakistan has taken some adaptability measures to mitigate the effects of climate change. The first of its kind was adopted by Pakistan in 2012. The National Climate Change Policy (NCCP) which provides the sufficient integration on national and sub-national level as Muhammad Mumtaz analyses the NCCP in his research thoroughly. Mumtaz concludes that though the

policy provides a promising mechanism for the monitoring of implementation but it lacks the comprehensive base to achieve the established goals such as protecting the glaciers which he argues is unrealistic because of the perpetual state of hostility between Pakistan and India on borders.(Mumtaz, 2018). However, with the change in administration in Pakistan, new PM Imran Khan in office the government has taken some noticeable measures to prevent the climate change threats. The current administration of Imran Khan has taken the initiative to broaden its security paradigm. (Siddiqui, 2021) PM Khan specifically mentioned that the national security of Pakistan doesn't unlike the past only confined to the strength of arm forces, the challenges like food security, climate change and are also the deep concern for Pakistan's national security. (Siddiqui, 2021) Pakistan has also committed to the vision UNO to effectively meet the challenges of environmental degradation. UN Secretary General Antonio Guterres during his visit to Pakistan remarked about the Pakistan's efforts regarding climate change "Like all developing countries, Pakistan has contributed little to the problem yet faces disproportionate vulnerability because of it. In the past decade, Pakistan has lost some 10,000 lives to climate-related disasters, including 1,200 due to a terrible heatwave in Karachi in 2015. The Indus valley is vulnerable to flooding and coastal communities face the prospect of being swamped by rising sea levels".(Dawn, 2020; UNO, 2020) He also appreciated the Pakistan's progress in adopting the UN-SDGs goals in his speech "Pakistan has embraced the sustainable development goals (SDGs) from the start. Back in 2016, Pakistan was among the first nations to integrate the SDGs into its national development agenda and recognize them. In 2018, Pakistan launched the national SDG framework to priorities and localize the goals throughout the country"(Dawn, 2020; UNO, 2020). Apart from that in agricultural and on other subnational and provincial level analysis the research on climate change and adaptation measures can be found regarding sustainable development goals, coastal communities and crop productivity and food security.(Friedman, 2013; Hussain et al., 2020; Mumtaz & Ali, 2019; Salik & Jahangir, 2015)

### **Theoretical Framework**

The end of Cold-War unfolded myriad intellectual discourses in traditional military, political and security paradigm due to increasing effects of environmental degradation.(Græger, 1996) In finding the meaning of the environmental security, the discourse at first seemed to be a concept which challenges the traditional security narrow approach to broaden its spectrum and include the issues and threats that



matter.(de Wilde, 2008) Barry Buzan stresses the need to realize the importance of 'biospheres' of both planetary and local level because rest of the 'human enterprises' depend on these systems.(Buzan, 1991) The founder of the World Watch institute , Lester Brown in 1977 proposed that which Elizabeth L. Chalecki noticed in her book "systematic environmental issues such as, deforestation, climate change, and the loss of arable land could be nonmilitary drivers of insecurity, that military forces would be ineffective against these new threats".(Chalecki, 2013, p. 5) Ullman also remarked about the national security that the national security should also take into consideration the threats like environment along with other military and traditional threats.(Ullman, 1983) The definition of Ullman's national security necessarily broaden the meaning of threats because the military power is not anymore provides the sense of security.(Chalecki, 2013) Moreover, the Homer-Dixon also is of the view that the realist perspective is unable to deal with environmental security because it believes in the maximization of the state power.(Homer-Dixon, 1991) Furthermore, the growing gap between the 'Global North' and 'Global South' could be a cause of conflict therefore, the resources must be transferred to South so that the environmental development practices could be ensured which are propounded by the Northern institutes like IMF and World Bank.(Chalecki, 2013, p. 7) During the Cold War era the definition of national security was strictly limited to the organized violence, however, insufficient to handle the environmental security threats.(Deudney, 1997) The process of securitizing the environment has transformed the traditional practices of security, this process reinvigorates the emergency-based articulation of security into broader one which encompasses the assigned roles and implications to the security concerns.(Trombetta, 2008) The linkage between security and environment bore quadrature reasons in its theoretical and operational conduct caused by human activities.(Graeger, 1996). First, the environmental security largely focuses on the sustainability due to the severe effects of environmental degradation which pose threat to security of human life. Secondly, environmental degradation could be a trigger for violent conflicts. Thirdly, the essential elements of military security such as control and predictability complement the environmental protection and sustainability too. Lastly, an empirical linkage between security and environment has been established, as politicians give some rhetoric in favor of environmental security in contemporary state affairs, though, that might sound quite political, however, the sustainability factor has secured its place in 'high politics'.(Graeger, 1996)

From the above-mentioned theoretical orientation of the mainstream scholarship about the environmental degradation threat to national security it is apparent that Pakistan to match up the speed and in its economic, socio-political need to adopt the environmental security in its traditional paradigm of security. It is no longer the traditional threats that are to be worried most and concerned in 'high-politics' albeit, the sustainability measures and adaptation to the framework prescribed by the international institutes such United Nation Environment Program (UNEP) in the light of the reports presented by IPCC must be considered. However, a handful of scholarship criticizes linking the environment with security, for them the meaning of environmental security is mainframed and ambiguous. (Barnett, 2001; Dalby, 2013; Floyd & Matthew, 2013)

### **Findings/Results**

#### **Environmental Degradation Effects on National Security of Pakistan**

The rapid change in climate has engulfed the globe with its drastic changes in global temperature, rise in sea level, land degradation, soil erosion, heat strokes, unusual monsoon spells, glaciers' melt down, blizzards, cyclones, and storms etc. These drastic changes have affected the human life on earth in so many ways and posing the challenge to both developed and developing countries sustainability as it has the repercussions on the economic, health, agriculture, and security of the people. Therefore, it has become the phenomenon which is being discussed and debated around the world. The causes, effects and solutions are being laid out to prevent the possible disaster on the planet earth and to find out whether the change is being caused by the human activities or it is a natural cycle. (Hardy, 2003) usually, the omission of the greenhouse gases in the air is deemed the fundamental reason of the climate change which is largely caused by the human activity on the earth. The growing industrialization has been the primary source of the depletion of the ozone layer because of the gases these industries omit in the air. However, along with these human activities the nature itself can be a contributor to climate change as Holli Riebeek and Don Wuebbles noticed that volcanos can also be a great source of CO<sub>2</sub> omission in the air. However, in comparison to the human caused omission of CO<sub>2</sub> only counts 5% of the total greenhouse effects. (Hardy, 2003) The effects of the climate change though have globally been observed and witnessed according to the reports of the Intergovernmental Panel on the Climate Change (IPCC) but some of the region in the world are more prone to the disaster which makes them more vulnerable to the environmental degradation.

Environmental degradation caused by climate change along with the adaptation of the sustainability measures also concerns the traditional security paradigms. (Myers, 1987) The unprecedented challenges posed by the environmental degradation cannot be deal with the military powers of the countries. It demands the environmental security to be incorporated in the traditional national security strategies. Primarily, due to the danger of conflict it contains such as internal displacement, increasing urbanization, food insecurity, water shortage, floods, droughts and health issues. (Homer-Dixon, 1994)

The effects of climate change are more likely to endanger the developing nations in comparison to rest of the world.(Rahman & Lateh, 2017) South Asia is one of those regions which so have observed quite unusual effects as it is being defined by the IPCC. (Sivakumar & Stefanski, 2010) IPCC is a body established by the United Nations World Meteorological Organization (WMO) with the cooperation of the United Nations Environment Program (UNEP) in 1988 to analyze the scientific reasons of climate change and its impacts on the socio-economic and then to form the adaptability measures. (Sivakumar & Stefanski, 2010). Pakistan being in South Asia faces the severe effects of climate change such as melting glaciers, soil erosion, floods and droughts. (Mumtaz & Ali, 2019)

### **Environmental Degradation Effects in Pakistan**

Pakistan's economy is largely dependent upon the agriculture sector. Almost more than 70% of the economy is dependent upon the agriculture sector. The agriculture sector in Pakistan includes the crops such as rice, wheat, sugarcane, maize, and cotton. The crops are usually divided in two seasons as 'Rabi' and 'Kharif'. The season of Kharif crops is a summer season which lasts from May to November and in this season the major crops which are cultivated includes, rice, cotton, and corn. While the Rabi crops include, millet, barley and wheat. (Nomman Ahmed & Schmitz, 2011) Climatic change on the agriculture is more likely to impact the small farmer and they form the 80% of the total agriculture sector of Pakistan. The farmers who belong to arid and semi-arid areas are more prone to the climatic effects and the overall impact on the agriculture resulted in ; 'shortening of growing season length (GSL)', 'increases the water requirements at critical reproductive stages', which directly affected the overall yield decreased 6-18% in both arid and semi-arid areas. (Ullah, 2017) Similarly, another effect of the environmental degradation can also be observed in Soil erosion in northern part of Pakistan. The studies used the 'Revised Universal Soil Loss Equation (RUSLE) and GIS found that around 65% of Pothwar area have been eroded which ultimately effect

the water reservoirs and downstream dams. (Ashraf et al., 2017; Nasir et al., 2006) Pakistan is a land which is blessed with the glaciers, home to almost 5218 approximately. (Laghari, 2013). IPCC estimated about total global mountain glacier would disappear till 2100. In Pakistan a study found that though, the CPEC benefited Pakistan in terms of economy but is likely to contribute largely in the emission upto 36.5 million tons of CO<sub>2</sub> as 7000 truck would be passing through on CPEC. (Nabi et al., 2018) Moreover, as Pakistan is an agricultural economy, so the spell of monsoon is vital to the water requirements for the crops. However, with the effect of climate change the monsoon cycles have been observed in variability. The monsoon in some of the areas have been reduced and it is relatively low as compared to India because of the geophysical location of Pakistan. In Pakistan the monsoon in summer lasts around one and half month while in India it lasts for almost four months. (Safdar et al., 2019) Moreover, Pakistan likely to face the cyclones and storms, degradation of ecosystems and biodiversity loss according the UNDP reports.(UNDP, 2010)

### **Threat Assessment of National Security**

Globally, the dynamic of tradition security paradigm has been evolving since the environmental degradation have been posing new challenges to the security of a state therefore, it becomes imperative to inculcate the environmental security concern across the world.(Brown, 1986) The disastrous change of climate in South Asia have implication for the national security of the countries lie in the region. Pakistan's national security is endangered because of the rapid climatic effects on environment of Pakistan and Pakistan's national security environment. Environmental degradation may pose the threats which cannot be handled by the traditional security paradigm. As Pakistan has been exposed to the dire consequences of the environmental degradation and natural hazards. Hence, these hazards and degradation when coupled with the socioeconomic, poverty and injustice, and political instability intensifies the vulnerabilities in Pakistan. (Mustafa, 2011) The shrinkage of the water resources from where it is originating in Kashmir could be a catalyst for the conflict between Pakistan and India. (Vaughn et al., 2010) Environmental degradation is conceived as external challenges to the security of Pakistan (Mazhar, 2019) however, the internal challenges of fast track urbanization, lack of resources and internally dislocated population are also emerging threat to the Pakistan's national security. The infectious diseases, flooded areas caused by the climate change are some of the non-traditional security threats to the security as well.(Bilal et al., 2021)

### Adaptation Measures in Pakistan

Pakistan adopted the National Climate Change Policy (NCCP) in 2012. However, this policy needs to be upgraded and adapt the measures which are of global level. The NCCP of 2012 incorporated some unrealistic vision such as the protection of glaciers and the disputed status of the glaciers borderland between Pakistan and India makes it difficult to protect. Contemporarily, Pakistan has established the climate change ministry and adopted the policy on both national and subnational level. The process of integrating the into a national security paradigm has also been adopted recently. The need for the adaptation measures in the backdrop of climate change in Pakistan are most crucial to the agriculture sector. Farmers' adaption measures and ability mainly depends upon the knowledge about this phenomenon.(Abid et al., 2019) The table below shows the adaptability measures planning in Pakistan below.

**Table :4.1**

INDICATOR	PROGRESS
ProgressClimate change recognized in the country's guiding development vision/plan	Climate change is recognized in Pakistan 2025as a threat to the country's energy, water, and food security
National-level coordinating entity for climate change established and active	Not present
Climate change policy and/or law in place	National Climate Change Policy (NCCP) released in 2013
Climate change strategy published	Framework for implementation of NCCP released in 2014
Climate change action plan published	Not yet prepared
Adaptation plan published	
Climate change fund or adaptation fund operational	Not yet prepared
Climate change units established in key ministries	Not present
Climate change integrated into national sectoral policies	Not present
	Largely not integrated into national sectoral policies

Source: CARIAA Working Paper#15<sup>1</sup>

### **Conclusion and Recommendation**

The findings of the study that though, Pakistan in the recent past have adapted some measures under the guidance UN bodies and framework but still need to bring the maturity in its commitment towards the environmental degradation implications. In addition to that the security paradigm of Pakistan needs to incorporate the sustainability measures regarding the environmental changes along with the traditional security threats to security of Pakistan measures. It has been found that the globally it has been accepted the traditional hard military power is unable to tackle with the droughts, cyclones, sea level rise and loss of ecosystem and biodiversity. Therefore, these aspects of the environmental related must be covered under the guise of climate change ministry under the civilian government. Moreover, the farmers of both large and small scales need to educate about the environmental degradation effects on the productivity of the crops. Similarly, the research in the area of climate change through academia and think tanks should participate and find out the actual effects and make an threat assessment for the policymaking of Pakistan. Moreover, the security forces must be trained to handle the situation in the time of emergency so that the damage control could be ensured on a large level. Apart from that the people through the projection of the social and mainstream media must be aware about the solar energy and to minimize the usage of fuel energy. Therefore, an holistic approach on both national and subnational level which with intrinsic integration must be adopted for the sustenance of human, environmental and traditional security of the people of Pakistan in a long run.

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