

**RESEARCH PAPER****Food Insecurity and Scarcity in Pakistan: Causes and Impacts****Mahum Fatima**

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**ABSTRACT**

The objective of this paper is to highlight the issue of food insecurity in Pakistan along with the causes and impacts of this crisis in recent years. The background of the concept of national security is extremely important and food scarcity has been on the rise in the past few years in Pakistan; its causes ranging from the exacerbating climatic conditions to inefficient management of resources and production. There is a dire need to tackle this issue in order to prevent the rising numbers of poverty and starvation from escalating further. The methodology includes using secondary sources such as journal articles, books, research papers etc to analyse and summarize the issue of food insecurity in Pakistan in recent years. The results of this research paper indicate that the food shortage has reached unprecedented levels with the recent flooding and climate change. The recommendations summarized at the end of this research paper is that the government of Pakistan needs to take immediate steps to install sustainable food policies that will counter the rising scarcity.

**Keywords:** Climatic Changes, Environmental Degradation, Food Insecurity, Lack of Management of Resources

**Introduction**

Due to its geographical and geostrategic location Pakistan is prone to all kinds of challenges in the South Asian region. Earthquakes, floods and droughts have been slowly increasing which have inflicted huge financial and human losses. As a result of such issues scarcity of water, lack of proper hygiene and destruction of food resources has also escalated in recent years. Furthermore, the high growth of population is becoming a serious strain on the already dwindling resources available in the state and it is extremely important for Pakistan and its institutions to take measures to combat this serious issue.

All of these non-traditional security issues also called into question the very rigid framework of security studies that focus on more traditional approaches, rather than developing strategies that would help tackle the non-traditional issues within a state as well. One of the major non-traditional security issues that Pakistan is currently facing is the scarcity of food and dwindling food resources posing potentially hazardous repercussions for the state.

**Literature Review**

Hayat (2023) talks about the potential of Pakistan to boost its export of major crops such as rice, sugarcane and cotton. He has stressed the importance of diversify the markets and improving the quality of the products and also insured that they meet the international standards of trade. Pakistan has a lot of potential when it comes to cotton and sugar and it needs to upgrade its industries and implement more sustainable and environmental laws in order to bolster production and investment. The importance of the agricultural sector is seen by its contribution to 25% of Pakistan's GDP and the special attention needs to be paid in modernizing and enhancing this sector (Hayat, 2023).

Shahzad (2023) has highlighted the rising inflation in Pakistan. These rising prices have been a source of major problem for the population where food beverages and transport prices rose to 50%. As a result of the rising inflation, many people have had to resort to going to warehouses to get bags of flour. There is often a lot of disorderliness in these warehouses and stampedes breakout resulting in casualties. This inflation has been triggered by a crisis caused by the balance of payments in regards to IMF loans. The situation is in dire need of a solution otherwise Pakistan's economy will continue to suffer greatly resulting in major social economic challenges for the state (Shahzad, 2023).

Asad and Nawaz (2023) have addressed in the Tribune rising population of Pakistan is becoming a serious threat for the food security of the country. This is becoming a serious burden for the economic sector as well who have to impose heavy taxes in order to meet the growing financial demands of the country and balanced their payments with the IMF. There is a swear case of malnutrition and hunger in the country along with poverty that is further exacerbating food insecurity and all of this can more or less be linked to the rising population of Pakistan. They have stressed the importance of providing food that is sufficient for this population. Sustainable agricultural methods need to be adopted that make environmental protection and conservation of fertile soil that is Pakistan's biggest asset a priority. Organic and home-grown farming can also be encouraged among people in order to produce more food in a healthy way. Water shortages and very old farming methods have resulted in 90% of the countries water being used in agriculture and the irrigation method are not helpful in conserving water. This article stresses the need of reducing the use of chemical fertilisers as well in order to increase sustainability of agriculture. The authors also highlighted a fact that is not often talked about which is reducing the amount of food that is wasted. The Pakistan agriculture research council has stated that 36 million tons of food is wasted per year in the country. This is an extremely alarming number and the way to counter it, is to increase the population's accessibility to this food which will lead to healthy consumption less value, nutrition and less wastage. Food insecurity is linked to the sustainable development goal to that also highlights the need to reduce wastage of food in an effort to combat global hunger. Various reforms and plausible scenarios have been suggested for Pakistan in this article which focuses on sustainability and technological developments that can help modernise and strengthen the agricultural sector to empower the country's food sector (Sabir & Nawaz, 2023).

Ro (2022) has detailed the devastation caused by the flooding in Pakistan which started in July 2022. The flooding has had major impact on the agricultural sector as well as the livelihood and living of the people. The destruction was mainly focused in KPK, Sindh and Balochistan. This flooding was triggered by monsoon rainfall that was extremely heavy and unprecedented. Climate change has a major role to play in this type of monsoon rainfall. The overall political instability of Pakistan along with the dwindling financial resources of the country makes it difficult for Pakistan's infrastructure to hold up against such natural disasters. Additionally, Pakistan's topography that consists of many glaciers and mountainous regions, result in it being more susceptible to such flooding. The international rescue committee of Pakistan has cited climate change as one of the biggest triggers of the flooding but now the country needs to work on actually installing sustainable and preventative measures to make the country resilient against climate change and the rising food insecurity (Ro, 2022).

Ali, Haider and Nadeem (2023) in their article for the Journal of Social Sciences Review have highlighted the importance of working on human security along with other national interest in order to ensure and safeguard a nation serenity and development. External threats are important to tackle but a countries internal security is just as significant and food. Insecurity is such has become a major concern and needs to be tackled on the level of being a national security threat. This food shortage and insecurity leads to hunger, poverty, malnutrition and discontent among people. Pakistan needs to work on the

accessibility of its food products as many people are living below the poverty line with no employment or livelihood opportunities. The population of Pakistan has also been rising on a very high level which has resulted in many resources such as water and food to suffer as a result of the increasing burden to accommodate the population. Food insecurity cannot be tackled on its own and this article discusses in length various recommendations that linked together water resources and food production prompting a more inter-sectoral approach to tackling the larger issue of food insecurity in Pakistan region such as Sindh, Baluchistan and KPK (Ali, Haider, & Nadeem, 2023).

Ali and Ahmed (2023) have brought to the forefront the repercussions faced by the country's economic sector after the floods. The agricultural sector faced the biggest setback which included damages amounting to Rs.800 billion. The agricultural production was vastly reduced during this year as well and farmers in Sindh and Balochistan had to face numerous challenges during the rabi season. The production of important crops declined as well. This report serves to give to the point data, numerical data that is essential for people to understand the magnitude of the damage faced by the country after the floods and the government needs to work on stabilising the agricultural and food sectors of the country (Ahmed & Ali, 2023).

Chaudhry (2023) highlights the rising hunger in Pakistan and considers it to be the worst in South Asia. Many reports have suggested that the hunger situation in Pakistan is much worse than that of Afghanistan as well. The Global Hunger Index has also labelled Pakistan's rising hunger problem as a very serious issue. The type of agricultural set up we have in our country dates back to the British colonialism who introduced this system of feudal lords that have greatly stunted any kind of modernisation or diversification of food producing sectors. There is a significant need to tackle the rising climate change along with the implementation of more modern and diverse agricultural production methods build strong infrastructure that can withstand natural disasters. In order to overcome the infrastructural legacies set by the British the government needs to work on empowering its people and farmers in order to ensure a more balanced food security in the country (Chaudhry, 2023).

### **Material and Methods**

The methodology includes using secondary sources such as journal articles, books, research papers etc to analyse and summarize the issue of food insecurity in Pakistan in recent years. Qualitative research has been done with an emphasis on analytical and explanatory text that will highlight the severity of the issue. Certain figures and data have been taken from the Global World Hunger Index along with news articles from hubs such as Dawn and Express to highlight the more recent changes in the crisis.

### **Results and Discussion**

Despite the world being in its 21st-century and marked with globalisation and technological advancements, food insecurity is still one of the most pressing non-traditional challenges to national and international security. The overall economic crisis of the world has resulted in the prices of food and all related commodities to increase as a result of which many people are not able to afford them. This results in majority of the population that is below the poverty line, to be deprived of important nutrition and minerals rendering them extremely malnourished. Due to the current global structure, security is no longer just an internal state issue but one that has an effect on the regional dynamics as well. The overall climate change and environmental degradation also had a major hand in the production of food, especially crops, fruits, and vegetables. Lack of clean water and water scarcity itself has also resulted in agriculture being affected.



Figure No. 1: A young girl holding a handful of wheat

While on the subject of agriculture, it should be noted that Pakistan's majority sources of food are reliant on the agricultural sector. Many farmers have taken a hit to their livelihood, and the rest of the population is suffering due to their lack of affordability when it comes to healthy food resources. The World Food Program estimated that in the years 2008 to 2010, 77 million of the Pakistani population suffered from severe food shortages (Chaudhry, 2023). Despite the fact that the output of food has increased in recent years, there is still an alarmingly high rate of Pakistanis who are deprived of healthy food resources which is six out of every tenth Pakistani. This has resulted in many diseases such as anaemia and malnutrition to spread among women and children as well.

The Human Development Report published in 2023, took the public records of Pakistan's multidimensional poverty index of the years 2017 to 2018, and estimated that 38% of the population from the year 2021 to 2022 has been classified as below the poverty line while 13% is in the danger zone of crossing into poverty (UNDP, 2023).

Their predictions for the end of 2023 is that the overall poverty of the country will reach around 37% which is slightly lower than the previously estimated figure but it needs to be understood that population growth in the last four years needs to be taken into account as well. Therefore keeping the population increase in mind, they estimated that in the recent years 3 million more Pakistanis have fallen into the poverty line since 2019.

The agricultural sector has historically been the backbone of Pakistan's socio-economic development and growth. This sector offers employment opportunities to nearly half of the countries skilled labor, it produces important materials for the manufacturing sector and also contributes to most of Pakistan's exports. According to data the agricultural sector is responsible for almost 23% of Pakistan's GDP. It has also given employment to 37.4% of the country's labor force. The figures for Pakistan trade activities state that around 70% of their exports are linked one way or another to agriculture. From a territorial angle, the significance of agriculture can be engaged by the fact that almost 47% of the land of Pakistan is agricultural fertile land. This is almost 9% higher than the global percentage of agricultural land. Many crops hold significant value with livestock contributing to 62% of the GDP generated. Wheat with a production rate of 5.4%, sugarcane 2.8%, maize with 6.9% along with cotton and rice are other important crops produced by Pakistan's agricultural sector. Agriculture is not an isolated sector and others such as forestry and fishing also contribute to the overall agricultural value.

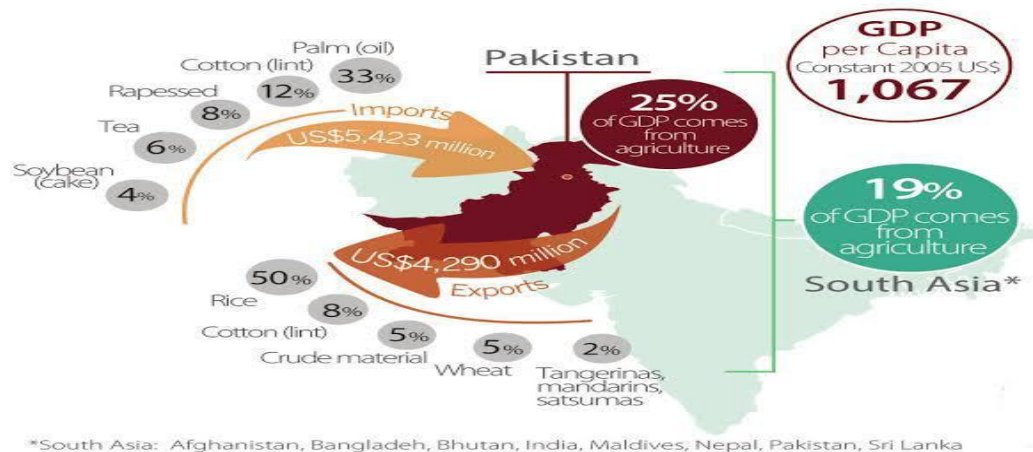


Figure No 2: Diagram of Pakistan's agricultural GDP in respect of various important crops

According to Pakistan Economic Survey of 2022 to 2023, there has been a significant increase in the production of oil seeds which in turn has promoted the production of other crops. As a result of the high production of livestock, Pakistan also generates revenue of \$950 million through leather exports. This has made Pakistan the fourth largest exporter of leather.

Due to most of the labour force of Pakistan being employed in the agricultural sector, it has been crucial in providing the labour with more and more employment opportunities. Employment is extremely important for the per capita income of the country which then promotes development and sustainability. When the per capita income increases the living standard will automatically get better which in turn promotes the establishment of efficient education, health and other important socio-economic sectors.

The crops that are yielded as a result of the agricultural sector are extremely important as a food source for Pakistan as well. The more production and employment there is in the agricultural sector the more development there is of green technology and banking which has propelled Pakistan to towards more efficient and modern agrarian activities. This is crucial when efficient production with the maximum yield is needed.

Pakistan's agricultural sector has been facing numerous issues that are slowly affecting its production and growth levels and ultimately causing repercussions for the country's GDP and livelihood of the population. The biggest setback for the agricultural sector was the October 2022 monsoon rainfall that led to some of the worst flooding Pakistan has ever experienced. The floods causes major devastation of the land from the 15<sup>th</sup> of June to October 2022, taking the lives of almost 1700 people and causing economic damages of \$3.2 trillion. The causes of the flooding were the extremely heavy monsoon rains along with the melting of the glaciers. All of this was attributed to the unprecedented levels of climate changed and severely hot temperatures in Pakistan. This disaster was termed as one of the most expensive natural disaster ever recorded.

The flooding not only displaced almost 7.6 million of the population but damaged important agricultural commodities and infrastructure, standing crop, storages of grain and livestock. The provinces that suffered the most damaged were Sindh and Balochistan. Food insecurity rose to unprecedented levels as a result of the subsequent damage of the agricultural yields. Pakistan's agricultural sector bore the brunt of the damage. 4.4 million acres of crop were destroyed and almost 1 million animals were killed. The amount of damages faced by the sector was around \$12.9 billion i.e. 43% of the total damages faced by the state. Crops faced the heaviest losses with 82% of the devastation, livestock and fisheries followed with their respective 7% and 1% (Finance Division, 2023).



Figure No 3: Rescue workers help evacuating flood affected people from their flood hit homes following heavy monsoon rains in Rajanpur district of Punjab province

The destruction faced by the agricultural sector had major socio-economic impacts on the lives of the people. Robbing them of their source of livelihood gave rise to high levels of unemployment in the population. Poverty and malnutrition has risen particularly in rural and already-poverty stricken communities. A research was conducted by the Integrated Food Security Phase Classification (IPC) in tandem with the Food and Culture Organization (FAO) and Inter-Provincial Coordination Division (IPC) in April 2023 that concluded that in almost 43 of the affected districts in Sindh, Balochistan and KPK, 29% of the population in rural areas is suffering from food insecurity (IPC, 2023)

The government of Pakistan scrambled to mitigate the damage caused by the flooding to the country's most important sector. Organizations on both federal and provincial levels like the FAO launched campaigns for farmers who suffered heavy losses as well. Overall, the agricultural production in 2023 was only 1.55pc which is very less when compared to 4.27pc of the previous year. The floods severely damaged the most important crop i.e. kharif, causing a decline of almost 3.2% in their production (Ahmed & Ali, 2023). Rice and cotton production also dipped in production levels. The livestock sector was a surprising factor that somehow managed to overcome the damages and contributed to most of the agricultural GDP i.e. around 62.7% according to fiscal reports of 2023. However the government is hopeful that with the proper reforms in place and incentives for the affected farmers they will be able to mitigate the destruction caused by the flooding. Due to the country being largely agrarian, it has been able to avoid an overall dip in the agricultural GDP.

Besides flooding and climate changes another issue that the agricultural sector now needs to keep up with is population growth. With the Pakistani population growing at a very fast rate and the rapid urbanization taking place there is an immense pressure on the agricultural sector to ramp up its production. Since agricultural commodities make up most of Pakistan's exports, there is a need to diversify the food and trade sector. Too much burden on one sector can slow down efficient production as was observed between the years of 1970 to 2000 in Pakistan where growth went from 4% per year to below 3% (World Bank, 2022).

From early 2023 to the ongoing year of 2024, the Pakistani population has increased by 4.7 million (Kemp, 2024). The agricultural sector has to install sustainable methods in order to meet the needs of the growing population and the increasing state expenditure.

Some of the major and pressing issues that this sector faces can be summarized below:

1. Due to water shortages

2. Lack of proper irrigation systems which are old and not in line with modern technology
3. Lack of awareness and availability for farmers about newer agricultural methods and enhanced livestock and crops
4. Excessive use of chemicals and fertilizers that damages the soil fertility and water sources

There is a risk of food shortages happening in the future and in order to avoid that, the government needs to take action and work alongside other organizations like the World Bank to install projects and programmes that will make agriculture more sustainable and long-lasting not just for the economic growth of the country but also to meet the needs of the ever-growing population.

Another major disaster that struck the world globally and has severely affected the production of crops and meat in Pakistan is COVID-19. Pakistan had a goal of reaching “Zero Hunger” by the year 2023, but the progress of this was completely hampered by the outbreak of coronavirus. Even before COVID-19 broke out, 16% of Pakistani households were suffering from food insecurity and among this at least 14% were those that experienced a moderate level of food scarcity and had to skip one meal of the day (Shah, 2022). The remaining percentages of households are the ones that reported severe food shortages. During the pandemic itself, the number of households suffering from food scarcity claims to 40%, which is an alarming high rate.

The situation after the pandemic is not looking any favourable as well, indicated by a contemporary study undertaken by the World Food Programme (WFP), which stated that 26% of the Pakistani population in 2021 that was suffering from acute food scarcity has climbed to 43% in 2022. Acute food scarcity is dangerous because it means that the overall population is not able to consume a sufficient amount of food that is necessary for their health and nutritional value. Pakistan is the sixth country in the world which has alarmingly high rate of food scarcity.

Another reason for the increasing food insecurity of Pakistan in recent years is the rising economic crisis that has plagued the country. This has resulted in many households being unable to afford food. Alarmingly high percentage of inflation was reported in March 2023 going from 31% in February to 35% within a month. As a result of the increasing inflation, flour distribution centres were established all over the country to provide hunger ridden households with flour. At least 16 poverty and hunger ridden people became victims of stampedes in warehouses and looting of flour bags has also been reported (Shahzad, 2023).



Figure No 4: Diagram representing the rising inflation of Pakistan

The overall inflation of food resources has risen to 47% and 50% in urban and rural areas respectively. Pakistan has also been plagued with a debt crisis with the IMF. A negotiation between the two regarding a funding of \$1.1 billion that was decided in 2019

has not yet been finalised. The reserves of the country have barely been able to account for the recent imports that the country needed. The Pakistan Finance Ministry has also stated that this inflation will only rise in the coming months. All of this has a major impact on the accessibility of food for people who are already on the poverty line and cannot afford expensive commodities.

Food scarcity is a big threat to Pakistan's human security. Pakistan's political instability and economic challenges have impaired human security, and poor leadership has hampered long-term policymaking. In spite of the fact that Pakistan has grown economically on a small scale in recent years, there has been rising food insecurity in the country. Around 60% of the population are deprived of food and many women and children suffer from malnourishment. The overall economic crisis, political instability, along with the corruption of the governments and institutions responsible for ensuring proper food security has rendered most of the Pakistani population below the poverty line.

As a result of this, many of them are not able to afford food. The effects of flooding over pandemic of COVID-19, and the scarcity of water has severely affected agricultural growth and crop production, which comprises of the majority of the food sources of Pakistan. This has financially crippled a lot of households that depend on farming for their livelihood as well. At least 15 districts do not have proper access to healthy food with Baluchistan having the highest number of districts suffering from food insecurity. The climate change that has been occurring globally, has also affected Pakistan's largest crops such as wheat and rice, which again makes up majority of the food sources of the country.



Figure No 5: Person counting rupees

### **Conclusion**

The government should prioritize the institutional reforms needed to address the social, political, and institutional issues that affect governance which is directly linked to the provision of food sources in the country. An efficient and collaborative strategy via thorough policymaking that considers both the supply and demand of food and water is necessary to address the problem of scarcity. The overall climate change that is occurring globally demands serious attention from the Pakistani government as the greater the impacts of climate change, the lower would be the food security. There is a need to develop sustainable agricultural solutions by Pakistan that address food security and also keep the ever changing climatic issues in stride.



It is very essential for Pakistan to combat this food insecurity issues as soon as possible. The establishment of short-term and long-term strategies needs to be done. Long-term strategy should focus on the implementation of proper frameworks policies and programs that will overall improve the food security of Pakistan. Such initiatives can include social safety nets (SSN), labour market programs and a more thorough check and balance on the funding and infrastructure of the food and agricultural sector to ensure equal provision and lack of corruption.



Figure No 6: Logo of Pakistan’s Green Peace Intitative

### **Recommendations**

- Sustainable production of food through diversification of agricultural methods, awareness to farmers about crop rotation, innovative techniques, and better utilization of fertilizers, water, and high-quality seeds to increase agricultural productivity and yield and ensure food security for all.
- The government should focus on providing subsidies for healthy food and increase investment in local food production to reduce reliance on imports
- Encourage more diversified sources of food and economy to alleviate the heavy reliance on the agrarian sector.
- Address the underlining issues such as poverty, unemployment, and inequality to ensure a consistent supply of nutritious food and maintain food security, particularly for vulnerable populations.
- Measures to control the rising population through family planning awareness and programmes
- Transparent administration and implementation of reforms/funding etc

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