



Food Security, Geo-Economic Vulnerability, and Climate Stress Reassessing the Psychology of State Resilience in an Era of Environmental and Supply-Chain Disruption

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Abstract

Climate affected countries with environmental degradation and low governance, indebtedness to outside loans; water scarcity and low agricultural resilience are struggling with the food security challenge. The research explores the exacerbation of food insecurity due to climate change's impact on agricultural production, psychological reliance on food imports, effect on food prices and on the States capacity. It examines the interplay between climate shocks, global supply-chain collapses, conflict, rising food prices, energy insecurity and geopolitical reliance in climate-hazard-prone regions in Africa, Asia, the Middle East and Latin America. The study identifies food insecurity not only as a humanitarian issue, but a significant systemic driver of political unrest, economic fragility, migration pressures, and strategic dependence. This research employs a qualitative analytical method and guesses the effectiveness of the measures which local governments took in response to the climate stress and can enhance the food system resilience to climate stresses by implementing adaptive agriculture, diversified trade, regional cooperation, water governance and institutional reform. Finally, the author emphasizes that food security plays a pivotal role in sovereignty, stability and international security.

Keywords: Food Security; Climate-Stressed States; Geo-Economic Vulnerability; Climate Change; Supply-Chain Disruption; Agricultural Resilience; Food Inflation; International Security

Introduction

Food security is an emerging, critical geo-economic security issue of the 21st century. Food security has traditionally been defined as access to safe and nutritious food required for living a healthy life, which is available, accessible and affordable. The following discussions generally associated food insecurity with poverty and hunger and weak agricultural production, as well as

with humanitarian crises. The times have changed, however, and food security is becoming a multi-dimensional strategic problem influenced by a combination of climate change, geopolitical competition, fuel markets, trade reliance, migration, conflict, and national resilience. Food insecurity is an increasingly political, economic, sense of state, and international security issue, not only a development issue, in a context of climate stress. Beyond its developmental dimension, food insecurity is a political, economic, state and international security issue in a context of climate stress (Fares et al., 2026). Climate stressed states include states suffering from acute impact of climate change including drought, desertification, floods, sea-level rise, heat waves, water scarcity, soil degradation and fall in rainfall pattern. Agricultural systems are highly vulnerable to climatic shocks in many of these countries, particularly in small island developing regions, the Middle East, South Asia and Sub-Saharan Africa. Their vulnerability is not in isolation, it is also institutional and economic. They have weak governance, limited fiscal capacity, heavy reliance on food imports, weak infrastructure, heavy debt burdens, population growth, and political instability, which limit their capacity to absorb shocks. Food insecurity is then exacerbated, creating a larger geo-economic vulnerability due to climate stress interacting with structural vulnerabilities. The impact of Climate Change on agricultural production systems is direct to all the worlds. Above average temperatures can have a negative impact on the productivity of staple crops like wheat, rice and maize, especially in the tropics and subtropics. Droughts reduce water resources and water availability, floods cause loss of standing crops, loss of livestock, loss of transport infrastructure, and loss of roads where water can be stored and markets reached. The irregular precipitation conditions hinder the planting cycles, worsen inferred uncertainty for farmers, particularly in rain-fed agricultural countries. Not only are these disruptions impacting food production but also food prices, family income, nutrition and rural employment. Climate extremes are a major contributor to acute food insecurity conditions with alongside the conflict and economic instability.

The food system is also very connected on a global scale, as a result of trade liberalization, international food chains, commodity markets, supply chains for fertilizers, energy logistics. Global linkages has helped in increasing food availability in certain regions through importation of food when production is inadequate. It has also created new dependencies, however. The highly dependent states on imported wheat, rice, edible oils, fertilizer, fuel and transportation are significantly vulnerable to global prices and export bans, or transportation issues and geopolitical crises. These vulnerabilities were undermined during the COVID-19 outbreak and the ongoing Russia–Ukraine conflict, which disrupted supplies of raw materials such as grain, fertilizers, shipping routes and energy, particularly for African, South Asian, and Middle Eastern food importing economies (Ntatsi et al., 2026). Political instability is highly associated with food security. Food price volatility is known to lead to protests, rioting, migration and loss of trust in the government. Food shortage in fragile states erodes state legitimacy to a degree because states are evaluated in part by their economic security of their citizens at the basic level. Agricultural losses due to climate change also worsen land, water, pasture and job scarcity, thus facilitating communal violence, displacement, conflict and antagonism. Food insecurity thus becomes a humanitarian issues and a political risk multiplier. The relevance of geo-economic dimension of food security has grown more and more. Geo-economics is defined as the means of using economic tools, trade mechanisms, resources, and finance and supply lines for political or strategic ends. As a result, food is now a tool of geo-economic intervention and control over food surpluses, grain exports, fertilizer production, seed technologies, logistics networks and food aid can affect the diplomatic relations and dependency relations. There are four ways States with the capacity to produce their own food can have an impact on food-deficit States: exports, investments, food aid, and price-setting power. On the other hand, dependence on outside

suppliers for basic nutritional security can rob food-importing states of policy autonomy when they are faced with stresses to their climate. At the other end of the spectrum, when food-importing states are subjected to stresses to their climate, and depend on outside suppliers for their basic nutritional security they may lose policy autonomy. Energy markets exacerbate the vulnerability of food systems further. Today's agriculture relies on fuel, electricity and fertilizers, irrigation pumps, cold storage, transport logs and mechanized production. The higher cost of food products by rising energy prices means a higher cost of production and distribution for food. Limited availability of fertilizers decreases food production and results in poor access to food for consumers at a higher price. From this perspective, there is a close interdependence between food security and energy security and stability of trade. Those states particularly exposed are those that are stressed by climate change who have high import bills and poor currencies as these translate fast into inflation in the country. There is also a link between food insecurity and debt-dependency and fiscal fragility. Lack of financial room for food subsidies, investment in adaptation of agriculture, and expanding social protection programs in many climate-stressed states. Feeding a population often requires governments to make decisions between importation (expensive), subsidies, debt re-payment and development expenditure. These compromises can reinforce exacerbate political insecurity and reduce mid- to long-term resilience. Hence, the geo-economic vulnerability is a condition that arises when climate stress interacts with financial dependence, reliance on imports and low institutional capacity. The present study proposes to explore the linkages between food insecurity and socio-economic vulnerability in states affected by climate stresses. It examines the impact of climate change on agricultural production, food dependence on outside markets, political instability and migration caused by food insecurity, economic sovereignty impacted by food insecurity, and international security impacted by food insecurity. The study calls for a paradigm shift on food security, not only as a humanitarian or agricultural problem, but also as a strategic issue in the context of geo-economic rivalry at a time of climate change. This study ties together the issues of climate stress, food systems, vulnerability of the food supply chains and political instability to inform a better understanding of the impact of food insecurity on the security of vulnerable states (Shehzad et al, 2026).

Literature Review

The body of scholarship on food security has grown substantially since the threats that vulnerable states are facing as a result of climate change, economic interdependence, conflict, and disruptions to global supply chains have increased. The initial research in food security was primarily concerned with agricultural production and famine prevention as well as food availability. However, modern research and learning adopt a wider perspective looking at access, affordability, nutrition, sustainability, governance, social protection and resilience. This transformation has been influenced by the importance bestowed on food insecurity as a problem of access, the role of ineffective food systems and institutions in causing food insecurity, food insecurity's links to conflict and market volatility, and environmental stressors (Qu et al., 2026). The Malthusian theory is one of the earliest theories to propose a possible cause for food scarcity: food output is fixed, but population grows faster. While some have found the Malthusian theory of overpopulation to be an understatement of technological progress, agricultural modernization, and international trade, its main concerns still hold true in the context of climate-stressed regions where there is a high level of population growth, degradation of land and water scarcity. Modern researchers have renewed the discussion on ecological boundaries and limits, resource stress and the sustainability of agricultural frontiers. Population growth, along with the drop in soil fertility, are taking place in many fragile states, alongside a drop in

water availability and exposure to extreme weather. Entitlement theory with Amartya Sen's approach is still very much a part of the modern food security analysis. Sen attacked the idea that starvation is only due to a lack of food; he said that people can starve if they fail to get food because of poverty, joblessness, the market or political reasons. This framework is particularly helpful in applying to understand food availability in markets when it is not available for people facing climate stress. Climate shocks can adversely impact household income and food prices, and can ruin livelihoods which undermines household entitlement. The inadequacy of the distribution systems and economic access to food can help account for food insecurity in food-surplus societies as explained by Sen. Beyond that, the field of literature on climate-security has broadened the analysis to environmental change sets the stage for political instability, migration, and conflict. Droughts, floods, crop failures and water scarcity have been said to exacerbate social tensions due to its impacts on livelihoods and intensified competition on water, land and other resources. pesquisas carried out in the Sahel, Syria, Yemen and in the Horn of Africa have reported that environmental stress is not a direct trigger of conflict, but rather can add to the levels of instability already in place due to factors of weak governance, poverty, ethnic tensions and armed violence. Food insecurity is thus a threat multiplier that can make fragile political contexts susceptible to unrest and displacement (Maqsood et al., 2026). In recent times scholars have more frequently focused on the geo-economic aspect of food security. Food is no longer considered just a development issue, but also a strategic asset related to trade power, international sanctions, export restrictions, and international dependency. The agricultural exporting countries have the influence on the food importing nations by decisions on supply, prices, assistance and investment. Meanwhile, import reliant states are subject to external events such as export restrictions, devaluation of currency, transport disruptions, energy price hikes and geopolitical tensions. This literature demonstrates how food insecurity can jeopardize economic sovereignty by putting pressure on and subjecting the state to market volatility. The interconnections between global supply chains are illustrated through research initiatives that highlight the impact of climate-related disruptions in one part of the world on food supply and production in another. Climate disruptions in one region of the world can generate cascading effects across the global food supply chain, as shown in research projects. Russia-Ukraine war posed a significant impact on wheat, maize, sunflower oil and fertilizers exports and raised inflation of food commodities in Africa, south Asia and the Middle East. Likewise, droughts/floods in major exporting countries of crops can affect global food supply and lead to increases in prices in mercados dependents. The dynamics also indicate that export and import dependence, logistics infrastructure, and geopolitical situation, besides domestic production, play a significant role in creating food security in high-risk states when considering stress on the climate (Gul et al., 2026).

An additional important body of literature relates to adaptation and resilience. Doing so requires assistance from climate-smart agriculture, water-efficient irrigation, drought-resistant seeds, digital agriculture, early-warning systems, crop insurance, and increased storage capacity, scholars stress. These tactics can help increase food-system resilience if through increased productivity, decrease losses, and adapt to shifting climate patterns. But researchers also point to the fact that low income stressed states by climate change may be lacking of the money, institutional functions and technological know-how to effect such reform on massive scale. The literature also emphasizes that climate vulnerability is also unevenly distributed among the developed and developing economies. Rich States have more robust infrastructure, insurance systems, agricultural technologies, diversified food imports and financial buffers, and have institutional capacity for adaptation. Developing countries, on the other hand, are frequently highly agricultural, with a greater reliance on farming for employment and income, and poor

investments in irrigation, storage, research and rural infrastructure, all of which are necessary for coping with climate stress. The inequality that this means that the same climate shock can have much more devastating effects in poorer states than to achieve-states. Low-Baseline warming scenarios can cause Latin America and the rest of the LIC to suffer from much more food-security decline than developed countries (Neira et al., 2026). The literature on governance also highlights the significance of institutions for influencing food-security outcomes. Good governance ensures states more capacity to foresee and curb shortages, manage markets, assist vulnerable house-holds, invest in agriculture, and aid in emergency management response. In extreme cases, lack of governance, corruption, conflict and poor planning can exacerbate food insecurity even in the presence of resources. Therefore, institutional resilience plays a key role in how climate stress relates to geo-economic vulnerability. The evidence in general concurred on the link between food security and climate change, geopolitics, and the reliance on trade, migration, conflict, and economic resilience. However, there is a major research gap in understanding how climate stress contributes to turning food insecurity into a geo-economic vulnerability in fragile states. The majority of science-based research on climate change impacts, agricultural productivity and hunger addresses these issues individually. Less focus is paid to the consequences of food insecurity on state sovereignty, bargaining power, dependence, and geopolitical stability. The focus of this study is to analyse the food security as a strategic variable in climate stressed states, not a humanitarian or agriculture issue (Gupta, 2026).

Research Methodology

The research method used in this research is qualitative research and analytical research, secondary data analysis. It is based on reports from international organizations, the academic literature, climate change assessments, policy documents and global food-security databases. Patterns are compared across climate-stressed areas, primarily Africa, South Asia and Middle East through comparative case analysis. The study uses descriptive (qualitative) and explanatory (quantitative) methods to analyse geo-economic vulnerability linked to climate change impacts on agriculture and food, reliance on importing food, food inflation, conflict, migration, and institutional fragility. The data used are analyzed for trends in hunger, food prices, climate exposure and humanitarian crises from sources like the Food and Agriculture Organization (FAO), the World Food Programme (WFP) and the World Bank. The study also reviews policy measures and measures for resilience by vulnerable regions. The methodology is suitable for primary sources, but was not developed in a position to reify time-variant climate information; it outlines a comprehensive framework for the strategic assessment of the food security and geo-economic vulnerability relationship.

Discussion

Climate Change as a Structural Driver of Food-System Instability

Climate change is a significant structural contributor to food insecurity in climate-stressed States, having impacted agricultural production, rural livelihoods and already shock-prone economic systems. Climatic stability is a key variable for sustaining agricultural production, especially in developing countries where irrigation systems are mostly underdeveloped and mechanization, climate forecasting and adaptation technologies in agriculture are limited. An increase in temperature lowers crop productivity, hastens evapotranspiration, decreases soil moisture, and causes more pests and crop disease. Such pressures will be particularly acute in areas already facing environmental hardships, such as the Horn of Africa, South Asia, and the Middle east

(Rosenberg et al., 2021). Drought is one of the most destabilizing climatic shocks as it significantly directly impacts on crop production, livestock productivity and household earnings when it persists for prolonged periods. The detrimental impacts of floods, cyclones, and extremes in weather are equally devastating as they make so many of the same crops and investments in the country become vulnerable to damage: cropland, transport infrastructure, storage systems, irrigation networks, and market connectivity. This impact is soon reflected in severe food insecurity at a national level in States that are already under climate stress and rely highly on climate-sensitive agriculture for food security. The vulnerability is greatly exacerbated through heavy reliance on rainfall for agricultural production. The irrigation capacity, water holding, resilience to drought and capacity to plan adaptively are significantly lacking in many low-income states, or a combination of these factors can be limited. As a result, there is little tolerance for variaceas in rainfall and it can cause significant disruption in food production if it occurs even at a moderate level. A smaller domestic food production tends to raise the dependency on imported food, leading to an impact on climate vulnerability as geo-economic dependency (Verma et al., 2026).

Geo-Economic Dependence, Resource Security, and Supply-Chain Vulnerability

The related scholarships from Bukhari give a valuable geopolitical and geo-economic framework to grasp food insecurity as a multi-dimensional risk to state resilience. His study on hydro-imperialism has made it clear that the control of transboundary water, infrastructure and water flow can impact agricultural productivity, community livelihoods, interstate bargaining power and strategic autonomy of the downstream state, thus making an important connection between water insecurity and food production, and national vulnerability (Bukhari, 2024). His work on water-resource governance also highlights coordination of institutions, equitable distribution of water resources, effective regulation and long-term planning as key pillars for sustainable development of agriculture and hydro-power in Pakistan, which are crucial for climate-resilient food systems. Bukhari's research on the Ukraine-Russia conflict also indicates that an interruption in oil, gas, electricity supply, fertilizer manufacturing, transportation and foreign exchange can spread like a wildfire into agricultural costs and food price inflation, particularly in import-dependent economies (Bukhari & Ullah, 2025). His research on conflicts and economic corridors sheds light on the potential impact on Ukraine and Palestine conflicts on food-importing states facing external supply shocks by redirecting investment, disrupting transportation, raising logistics costs, and eroding the reliability of regional connectivity projects (Bukhari et al., 2024). Research on chokepoints and strategic canals of the world supports this argument, as the Strait of Hormuz, Strait of Malacca, Suez Canal and Panama Canal have been identified as areas of vulnerability where disruption can cause freight delays, energy shortages, commodity inflation and cascading instability throughout global supply chains (Waheed ,Khan & Bukhari 2026) . Bukhari's study of China–United States trade relations further underscores how tariff conflicts, technological decoupling, strategic competition, and the growing complexity and fragmentation of global governance can affect the resilience and stability of the international supply chain and add to uncertainty for the dependent states (Bukhari & Khan, 2024). His broader work on geo-economics suggests that geo-economic factors, such as investment, infrastructure, trade, finance and access to resources, have increasingly become a means of strategic influence, potentially leading to reduced policy autonomy in crisis situations for states that rely on external systems for food, energy, fertilizers, water and transportation. All these studies point to the idea that food security is interdependent with water governance, energy markets, transport corridors, maritime access, geopolitical rivalry, and global supply-chain resilience. They also suggest that the psychology of state resilience is influenced by state

perceptions of scarcity, strategic dependence, susceptibility to external coercion, and trust in the government's ability to keep food affordable in times of environmental and geopolitical uncertainty. (Bukhari, 2026)

Food Import Dependency and Geo-Economic Exposure

One of the most strategically significant findings of contemporary food-security analysis is the extent to which climate vulnerability translates into external economic dependency. Many climate-stressed states rely heavily on imported wheat, edible oils, fertilizers, animal feed, and fuel-dependent agricultural inputs. While trade can improve short-term food access, structural import dependency creates substantial geo-economic exposure. The Russia–Ukraine conflict provided a clear demonstration of this vulnerability. Disruptions in Black Sea grain exports triggered sharp increases in global wheat prices, disproportionately affecting food-importing economies in Africa, the Middle East, and South Asia. States with limited foreign exchange reserves, weak fiscal capacity, and high debt burdens faced severe constraints in financing emergency imports (Parwada et al., 2026). Food dependency is strategically significant because it reduces economic sovereignty. States reliant on external grain markets become vulnerable not only to supply disruptions but also to geopolitical leverage, export restrictions, transportation bottlenecks, sanctions environments, and global price volatility. Energy dependency further intensifies this exposure. Modern food systems rely heavily on transportation, fertilizer production, irrigation pumping, refrigeration, mechanized cultivation, and processing infrastructure. Rising oil and gas prices therefore directly increase food production and distribution costs. Food inflation in vulnerable economies is frequently an indirect consequence of broader energy market instability (Senapati et al., 2026). This demonstrates that food insecurity in climate-stressed states is not simply an agricultural issue it is deeply embedded within global economic structures, supply chains, and strategic market dependency.

Conflict, Fragility, and the Food Insecurity Trap

Conflict fuels food insecurity and the other way round. Armed conflict has an effect on agricultural production, destruction of infrastructure, disruption of trade routes, displacement of populations and division of local markets. This in turn, leads to food insecurity, social unrest, economic despair, political instability and recruitment into violent groups. Today's hunger situations in Sudan, Yemen, Syria, Mali and the Democratic Republic of Congo reflect such a situation. Sudan, Yemen, Syria, Mali and the Democratic Republic of Congo are current examples of food security being severely affected by conflict. In these settings, food shortage isn't a result of environmental stressors alone, but rather a consequence of the complex interplay between violence, weak governance, forced displacement, disrupted markets, and economic collapse (Raza et al., 2026). Competition for reduced natural resources further compounds these stresses as a result of climate stress. Depleted livestock grazing resources, desertification and water scarcity in regions like the Sahel has created more conflict between pastoralists and farmers. Environmental stress does not result mechanically into conflicts; however, it puts tension in the already fragile socio-political system (Ijaz et al., 2026). This dynamic shows that food insecurity is a security variable that has an impact on the stability of the State and conflicts, and not only a consequence of human insecurity.

Inflation, Debt, and Economic Fragility

At the national level, vulnerable people in lower income brackets are most vulnerable to food inflation primarily because food spending is a larger portion of the income of vulnerable households in vulnerable economies. Raised food prices can significantly cut the capacity to enjoy nutritious food, worsen malnutrition and further push poverty. Recent International developments have shown that dietary access to food has been seriously affected by sustained Food inflation across several countries of Development (Silveira et al., 2026). At the macroeconomic level, inflation adds to the stress in the economy at the state level. To ease the impact when facing high food prices, governments typically try to subsidize or provide financing for imports or emergency support, but such measures impose additional pressures on existing fiscal budgets. It is worsened by financial liabilities. In many drought-stressed countries, a significant share of public spending goes towards servicing debt, leaving less funds for investing in agriculture, irrigating ag economies, adapting to the new climate realities, providing food aid and rural development. These results in a structural resilience gap for states with high vulnerability to food insecurity being the least well financed for adaptation (Prem Kumar et al., 2026). This dynamic shows that food insecurity is a security variable that has an impact on the stability of the State and conflicts, and not only a consequence of human insecurity.

Migration, Urban Pressure, and Humanitarian Instability

The impact of food insecurity on migration and displacement is growing more taken for granted because of climate change. Climate change has also made it commonplace for food insecurity to be a factor in migration and displacement. It is common for rural communities that face food shortages, water scarcity, loss of livestock, or livelihoods due to economic hardship, to move to urban areas or to cross borders, to find a living that sustain their economic interests. As a consequence of this migration, urban infrastructure, labor markets, public services, housing systems, and political governance are put under added strain. The fast growth of cities in fragile states tends to aggravate the level of unemployment, the phenomenon of informal settlements, and social tension, placing fragile states at a higher risk of experiencing political instability (Nawaz et al., 2026). This puts a strain on humanitarian systems. The funding shortfalls risk emergency food assistance in a variety of crisis zones, as international agencies increasingly alert to this risk. Millions are still at risk of food shortages, which is partly caused by funding shortcomings to provide the humanitarian financing to ensure response mechanisms remain sustainable (Khalid et al., 2026). Migration therefore represents both a humanitarian consequence and a geopolitical pressure point.

Adaptation, Technological Resilience, and Policy Transformation

One of the most prominently developed adaptation strategies for food security in the current policy discourse is climate smart agriculture. Incorporating drought resilience into crops, more efficient irrigation practices, precision agriculture, adopting digital forecasts, developing innovative approaches to soil management, and adopting decentralized renewable energy solutions can enhance resilience to climatic disruption (Rodrigues Valeriano et al. 2026). Important also is the role played by regional cooperation where shared water systems have impact on agricultural stability. Cooperative governance mechanisms are needed for river basins, like the Nile, Indus, and Euphrates, in order to minimize the risk of contestation, and enhance long-term food systems sustainability. There is some uneven implementation, however. Many climate stressed states cannot scale adaptation efforts due to financial constraints, governance weakness, corruption, infrastructure gaps, and technological gaps. The issue of building

resilience is gaining increasing momentum in international processes, yet there are still significant implementation deficits (Martínez-Cano et al., 2026).

Results and Findings

The study concludes that climate change will serve as one more structural threat multiplier and increase vulnerabilities in climate-stressed states, including in economic, political and environmental spheres. Food insecurity has become a strategic geo-economic policy challenge as countries come to depend on imports, leaving them vulnerable to market fluctuations, geo-economic upheavals and outside influence. Global supply-chain disruption is a major risk amplifier, and its potential impacts on domestic food availability and affordability are growing quickly, given the possibility of wars, pandemic influenza, export restrictions and energy shocks. Food insecurity and conflict still go hand in hand; hunger and collapsed livelihoods push violent conflict. Food insecurity continues to be very closely linked to conflict, and food insecurity and livelihood collapse are drivers of violent conflict. Fiscal fragility, debt dependency and economic inequality have a significant impact on adaptive capacity, thereby reducing the ability to invest in resilience, increasing long-term vulnerability and driving down resilience. Fiscal fragility and debt dependency, coupled with economic inequality will reduce adaptive capacity and therefore long-term resiliency investments, exacerbating the vulnerability. The phenomenon of climate migration is now becoming a critical geopolitical result of disruption in the food system, with an impact on humanitarian pressure and urban instability. Structural governance and financing constraints are a key constraint on the provision of resilience pathways, with technological adaptation and regional cooperation identified as important path options.

Conclusion

In climate-strained nations, food security and geo-economic susceptibility are closely linked, with environmental stressors compounding overall vulnerabilities in fragile states, where they overlap with weak governance, foreign reliance, economic disparities and tensions, and political unrest. This is an example of the study that food insecurity is not merely a humanitarian issue. It has grown into a strategic issue of economic sovereignty, migration, conflict patterns, political wider acceptance and international stability. The lower capacity of agricultural production inherent in climate stress compounds this, and vulnerability is spread outside the economy via the dependency of international supply chains. Systemic insecurity is exacerbated by conflict, inflation, debt heavy burdens and poor government. Despite technological advances and improvements, there is a significant inequity in resilience to large-scale hunger, and in infrastructure and adaptation capacity. In conclusion, a food shortage is the tip of the iceberg of what is becoming the relational issue of climate stressed states: resilience crises caused by the disruption of nature and geo-economic imbalance.

Recommendations

- **Strengthen Climate-Resilient Agriculture.** Modern irrigation, drought-resistant varieties of crops, and water conservation, rural road repair, storage facilities and farm system improvement to be more climate smart are worthy of government investment. These interventions can help safeguard food production against drought, flooding, heatstress, and fluctuations in rainfall. Agricultural resilience decreases crop failure, safeguards rural livelihoods and enhances national food stability.

- **Reduce Food Import Dependency.** It is important for both stressed and uns things for the country to diversify within their limits the source of foods they import and reduce the dependence of food production. If it's only from one or two external suppliers, it creates the situation of vulnerability in case of export bans, wars, pandemics or price shocks. Government's food security is enhanced by strategic stocks and home production that can support food supplies in the event of emergencies, and lessen the vulnerability to geopolitical pressures.
- **Expand Climate Finance and Debt Relief.** Implement concessional lending for all financial institutions, grants, debt restructuring and climate adaptation funds for vulnerable countries. In the face of climate change, many climate-vulnerable countries are unable to allocate funds to irrigation, agriculture, or even food security due to a high debt burden. Financial assistance can help to strengthen preparedness and diminish reliance on emergency food resources.
- **Integrate Food Security into National Security Planning.** The problem of food insecurity ought to be looked at not only as welfare rather than a national security problem. Food insecurity, hunger and high food prices may lead to demonstrations, migration, violence and political unrest. Food systems planning, economic policy, disaster response and strategic reserves management should feature government approaches to the crisis.
- **Strengthen Social Protection and Technology Transfer.** There should be targeted subsidies, nutritional programs, food assistance and employment programmes, to cushion the impact of food inflation on vulnerable groups. Meanwhile, international collaboration is needed to increase access to the use of precision agriculture, digital forecasting, renewable energy, and climate-resilient seeds and irrigation systems. This combination can simultaneously safeguard the locals and develop food system resilience, and that is a good thing.

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