

## Environment of National Security: Connection Between Environmental Issues & Security

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### Abstract

The notion of national security has taken on new meanings that now include a range of non-military factors due to shifting security dynamics and the rise of multifaceted threats. Many aspects of human development and well-being in the modern era are connected to a wider vocabulary of security. According to the United Nations Development Programme (UNDP), National security in the modern era includes concerns like economic security, food security, health security, personal security, common security, political security, and environmental security, Human Development Report (1994). Of these, environmental security is one of the most crucial since it explores not just the physical safety of people from hostile acts of aggression but also the ecology itself, which is essential to the survival of the human race.

Environmental problems transcend national borders and have the potential to endanger not only the security of the nation they arise in, but also the security of other nations with which they are connected.<sup>1</sup> As resources diminish and deteriorate in a nation as densely populated as India, with highly uneven resource distribution and disorganized development efforts, the problem of environmental security is becoming more and more pressing. This essay aims to investigate the connections between environmental issues and the national security framework. They include population, global climate change, military etc.

**Key Words:** Environmental Security, Population, Global Climate change, Military.

### Introduction

Serious discussion is frequently paralyzed by the ambiguity, confusion, and conjecture surrounding the causes, effects, and implications of global climate change (GCC), which divide the public and decision-makers into "believers" and "skeptics" groups. This article's goal is to examine how global climate change could affect national security and discuss solutions rather than argue for or against scientific evidence of the phenomenon. The idea is interpreted in a number of ways, the most significant of which are how environmental change endangers human security, national security, and the possibility of it contributing to violent conflicts. Though it differs greatly from the traditional security issue of armed invasion, environmental change is undoubtedly a national security concern for many nations. It has little bearing on the emergence of violent conflicts. It is also a matter of

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human security due to shifts in the quantity and quality of resources that the world's impoverished rely on. Environmental security is generally believed to be more about threats to the nation-state than it is to the environment itself.<sup>2</sup>

### **The Environmental Security Factors**

Analysing environmental security's relationship to national security is a difficult task because environmental security is a complex issue. The dynamic interactions between the many human and natural networks that make up the contemporary world are included in the concept of environmental security.<sup>3</sup> One of the most fundamental impulses in the hierarchy of human needs is security, which is only surpassed in importance by the physiological needs for food, water, shelter, and other necessities that are reliant on the health of the surrounding environment. Many distinguished scientists have predicted disastrous consequences if environmental issues are not prioritized. These are serious issues that could eventually result in disasters, regional tensions, and violence. The factors that impact environmental security are examined in the paragraphs that follow:

#### **Population**

It is becoming more and more obvious that taking into account environmental security issues without also taking into account the human population is impossible because humans are an integral part of the ecosystem. All human activity in the universe has an impact on the environment, which in turn has an impact on security. As only a limited population can be maintained without endangering the land's capacity to maintain its natural state, an increasing population would have an influence on the environment.<sup>4</sup> Unrelenting attacks on the environment are the result of a growing population and its demands for both renewable and non-renewable natural resources. Because of increased demand, renewable resources are being depleted more quickly than they can be replenished by natural processes.

The majority of environmental issues are actually caused by humans. Among these issues are the expansion of agriculture into wildlife habitats, infrastructure development, the building of barrages and embankments, deforestation, and land degradation. Growing population pressure frequently degrades natural resources to the point where it throws the region out of balance, causing people to migrate out of one area and arrive in other areas unevenly, raising security concerns.

#### **Worldwide Climate Shift**

Another problem with significant environmental ramifications is climate change. The weather and climate over vast portions of the Earth will change due to temperature rise and uneven distribution both spatially and temporally. Elevated land temperatures would enhance the process of soil moisture evaporation, elevate the temperature of dry soil, and accelerate the melting of ice. The combination of all these elements will alter the frequency and intensity of weather events in a given area.<sup>5</sup>As the climate deteriorates, forests and grasslands will disappear and deserts will grow.

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Numerous islands in the Pacific and Indian Oceans will have to face disaster due to ice melting and the resulting rise in sea levels, which is predicted to increase by roughly half a meter by the year 2100.6A rise in sea level combined with some low-lying areas' natural land subsidence could have significant effects in a number of vital global areas.

The lack of drinkable water is probably going to be a major second effect of global warming. The monsoon pattern that results from climate change is predicted to cause rains to become more irregular and unpredictable. Rainfall is expected to increase in intensity and concentration over a smaller number of days, potentially resulting in unfavourable conditions like flash floods. Arable and valuable land is eroded by floods, which impacts environmental sustenance. Food production is related to this, especially in light of the altered water availability. Besides, variations in the hydrological cycle may even cause droughts in some places. More people die, suffer, and lose money as a result of floods and droughts than from any other kind of disaster. Any rise in their frequency would have a detrimental effect on climate change globally, which could then have an impact on environmental security.

#### **Farmers' opinions about agroforestry**

Due to its diverse product offering, improved ecosystem services, and promotion of social, economic, and environmental security in the face of climate change, farmers' perceptions of agroforestry adoption in India's agroclimatic regions are, in fact, encouraging. Better management practices in AFS, however, supported by science improve socioeconomic conditions as well as ecological sustainability by increasing job opportunities, fostering crop diversity, raising family incomes, improving the nutritional value of food and fruits, and lowering reliance on natural forests through the provision of fuel wood, lumber, NTFPs, and other resources.<sup>7</sup> As a result, agroforestry is a farmer-friendly farming system with countless success stories. Development organizations use agroforestry to encourage current farmers to adopt and promote agroforestry technology in their fields in order to preserve both natural resources and economic stability.

Environmental Issues and Their Impact on National Security Countries nowadays deal with a variety of security challenges, ranging from conventional state-to-state conflicts like border disputes and cross-border terrorism to non-traditional problems like environmental degradation and energy crises. Environmental security issues have become more complex as a result of the various natural and man-made factors contributing to the new challenges posed by environmental issues. Some problems are regional in nature, while others have global implications. Environmental concerns are fundamental to human survival everywhere and are strategically important for countries that rely on natural resources such as gas, oil, water, and other minerals to grow their economies. Natural disasters that devastate a nation's environment, particularly when they come from outside its borders, eventually deteriorate bilateral relations and jeopardize regional stability.

The main environmental concerns that could have an impact on security have been discussed in the

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paragraphs that follow-

**Degradation and disturbance of the environment.:**

The ecosystem's health has been negatively impacted by environmental degradation and deterioration, including desertification, deforestation, reclamation of wetlands, damming of rivers, and vegetation clearance. Recent estimates indicate that two billion people who live in arid regions of the world are at risk of health problems and economic hardship due to environmental degradation. Natural disasters like hurricanes, floods, tsunamis, Al Nino, La Nina, and others disrupted ecosystems and resulted in massive destruction, unheard-of economic losses, and human misery and death. In the upcoming decades, tsunamis and hurricanes of the Katrina variety are expected to become more frequent occurrences unless effective preventative and corrective measures are implemented. This is a serious problem because persistent environmental disasters undermine a country's ability to grow economically, maintain social cohesion, and stabilize its political system.<sup>8</sup>

**Migration Caused by Environment:**

Natural resources like water, energy, and food are becoming more scarce due to environmental issues like pollution, excessive carbon emissions, and rapid population growth. Scarcity of environmental resources, which is a result of both resource depletion and population growth, has already caused or contributed to regional conflicts. Environmental risks to national security also rise in proportion to population growth. An increase in population leads to a number of social and economic issues, including resource shortages and environmental degradation. Furthermore, because environmental change leads to population displacement within states and across international borders, it decreases a nation's economic opportunities. Unexpected population migration across international borders exacerbates political tensions between surrounding nations. The receiving region may experience major environmental consequences as a result of the ecological effects of large-scale human migration. One distinctive aspect of the relationship between environment and security, including ethnic conflict, is this cumulative causality. Therefore, migration brought on by the environment has the potential to ignite political and economic unrest, which would then affect national security.

**Conflicts in the Environment:**

Competition for territory and resources has been the main driver of most violent conflicts throughout history; these conflicts are likely to get worse as resources get harder to come by and the environment gets worse. Resource scarcity has frequently resulted in violent confrontations both within and between states. Rivalries and tensions in particular will center on transboundary resources, like river waters that flow between nations. There are 261 major rivers in the world that flow through multiple countries. Of these, 176 flow through two countries, 48 through three countries, and 37 through four or more countries. It is noteworthy that many of these countries have

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water sharing disputes.<sup>9</sup> Since up to 80 countries, home to almost three billion people, or two-fifths of the world's population, already experience severe water shortages, it is impossible to completely rule out the possibility of conflict resulting from changes in the distribution of river waters as water scarcity increases. The geopolitical context makes it possible for the circumstances to spark violent resource-based conflicts and local tensions. This kind of insecurity has the potential to spread to international levels and has a significant impact on resource challenges at the intra- and interstate levels.

### **Impact on Military**

Using various aspects of the environment is essential and unavoidable when conducting military operations. The contemporary era has witnessed a surge in its importance owing to the advent of novel environmental problems and shifting demographic patterns. The need to protect significant environmental assets will grow as natural resources are depleted and deteriorated. In order to complete the mission, force deployment must adhere to environmental impact reduction and collateral damage minimization guidelines. Environmental factors are becoming strategically important, so military analysis for any operation's planning will require extra considerations:-

(a) A thorough analysis of the impact of military operations on the nation's social and economic aspects will be necessary. It's possible that other factors are less significant than the possible long-term environmental risk brought on by productivity losses.

(b) It is necessary to identify resource-rich areas near borders that may be a conflict zone due to their strategic environmental significance. For example, because of its economic significance or the need to ensure the survival of the local population, it may be necessary to avoid an especially productive area or a seashore. Important areas include: (i) Regions that contribute to the balance of the global climate.

(ii) Important national ecosystems are acknowledged to be delicate.

(iii) Places where a threatened or endangered species finds a home.<sup>10</sup>

(c) Carrying out relief efforts in the wake of environmental catastrophes and significant natural disasters, such as floods, earthquakes, cyclones, tsunamis, famines, and droughts.

(d) Forcing environmental degradation areas without significant public health measures to take health protection into account.

(e) Reacting to acts of sabotage or environmental terrorism.

(f) Addressing the negative environmental impact as a component of the departure plan.

According to recent research on environmental security, there is a crucial connection between environmental stress and violence, which can be brought on by a lack of resources, environmental

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degradation, shifting demographics, population growth, food insecurity, a faltering economy, and failing governments. The negative effects of environmental change may act as a tipping point between adaptation and conflict because many developing states have populations that are highly vulnerable to shocks related to climate change and have limited capacity for adaptation.

### **Way Forward**

It is vitally important to understand that environmental security is an integral part of national security as a whole and cannot be isolated from it. Understanding the main challenges pertaining to environmental security and the potential effects that environmental degradation and scarcity may have on security is a necessary first step in any strategic analysis.

A deteriorating environment poses a threat to people, countries, and the cosmos as a whole. Therefore, it's important to pinpoint the issues and problems pertaining to the region's environmental security and to emphasize shared responsibility while also fostering a better understanding of the issues at hand. Environmental security threats are typically diffuse, unintentional, and transnational; their causes and effects are frequently separated in space and time, have long-term consequences, and necessitate the cooperation and commitment of many different actors for a speedy resolution. These problems have deepened our understanding of how to promote peace, stability, and human security through addressing environmental change, conflict, and vulnerability.<sup>11</sup> Promoting "collective security" is necessary in light of the growing threats to environmental security as part of cooperative international relations and accommodating diplomacy. For regional security, stability, and economic growth as well as to elicit regional responses on the most practical means of addressing these issues, multilateral security cooperation on environmental issues is essential. Threats to environment security must be resolved in order to address environmental limitations as well as contribute to the establishment of confidence and continued peace. Given the interdependence of all living things on Earth, new models of environmentally conscious development, diplomacy, and governance are required.

Examining the various facets of the military's roles in combating environmental terrorism threats and safeguarding the environment while conducting military operations is crucial when it comes to their involvement. While some actions have been taken, such as establishing the National Disaster Management Authority, a comprehensive analysis of the role and impact on the military is necessary for an effective disaster response and consequence management strategy.

### **Conclusion**

Traditionally, environmental concerns have not been part of a realistic understanding of security. The political, economic, diplomatic, social, and environmental facets of security must all be included in the state's comprehensive security. Planning and promoting environmental conservation is necessary for nations to maintain environmental security and protect their citizens' well-being.

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Environmental security, sustainable development, and human survival ultimately depend on robust ecosystems. Security risks could arise from environmental issues such as pollution, land degradation, and water scarcity if they are not addressed and resolved. The South Asian region is among the most vulnerable in the world in this regard. Environmental security should be an integral part of national security planning and analysis due to the destabilizing potential of environmental issues.

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