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Revisiting Climate Change as a Matter of Domestic and International Security

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Abstract:

One of the growing concerns for the international community is the threat of climate change which is set to pose a grave threat to the peace and security of world nations, and this has engendered substantial interest among scholars and researchers in recent years. In particular, the Asian countries of India and Pakistan top the list of the Global Climate Index as nations that are vulnerable to numerous catastrophes as a result of climate change, due to melting glacier of the Himalayas that have on numerous occasions caused flash floods in the region resulting in several deaths and immeasurable disaster. This paper explores the threat of climate change to domestic and international security. Evidences would be ascertained to show the linkages between climate change and security and a discussion of security theories, and contribute possible recommendations to minimize the impact of the threat.

Keywords: climate change, international security, national security

1. Introduction

One of the growing concerns for the international community is the threat of climate change which is set to pose a grave threat to the peace and security of world nations. The Asian countries of India and Pakistan top the list of the Global Climate Index as nations that are vulnerable to numerous catastrophes as a result of climate change, due to melting glacier of the Himalayas that have on numerous occasions caused flash floods in the region resulting in several deaths and immeasurable disaster. Similarly, extreme weather events like storm and hurricanes that affect the USA and other countries on the Pacific belt, and extreme hot weather conditions in Australia, are a result of climate change phenomenon. As United Nations pointed out, the adverse impact of climate change make it a security threat despite the absence of conflict in military terms (Greenpeace.org, 2013). In this paper, the focus would be threat of climate change to domestic and international security. The first part would contain the background to understand the phenomenon. The second and third parts would analyse how climate change is a threat to national and international security. The article would also gather evidences to ascertain the linkages between climate change and security. The conclusion part would summarize the discussion and any possible recommendations to minimize the impact of the threat.

2. Climate Change

The phenomenon refers to the change in the distribution of weather patterns across the world, which leads to changing climate conditions in different geographies, for instance extreme weather and dip in temperatures in certain regions. Climate change is caused due to emissions of greenhouse gases that deplete the ozone layer on the earth's atmosphere leading to a higher solar radiation received by the earth, change in plate tectonics leading to earthquakes, volcanoes and tsunamis. The climate change phenomenon is popularly known as global warming. Greenhouse gases that are known to be the most important causes of climate change comprise of carbon dioxide, nitrous oxide, methane and other fluorinated gases. The biggest source of greenhouse gases is the human activities like fossil fuels that help in running transport, providing electricity and heat. Besides, industries that burn fossil fuels and convert raw material to final products also let out significant carbon emissions (Webersik, 2010).

3. Theories of International Security

Human security is an important area of social sciences which ensure that humans have the basic access to ensure a decent living without conflicts or threats man-made or natural. Security is achieved when danger in the form of threats confrontations, hazards and vulnerabilities are condensed, avoided, managed and coped with, by individuals, groups, organisations, states or regions, nations and the international communities as a whole. Nations and international organisations are responsible for protecting its dependents.

Security cannot be just measured in the way a state responds to the needs of its inhabitants but in the way it could provide for their future needs and security. In the context of international politics, the theory of international security meant protecting countries or regions from potential war or conflict situations. After the Second World War the 70's and the 90's were dominated by conflicts like the cold war and the Gulf war. However, in the last 15 years, there has been emergence of new forms of security threats like international crime, financial crimes like money laundering and environmental damage associated with the climate change phenomenon. The concept of human security emphasises on the security and well-being of individuals like protecting them for survival, their welfare and their assets. Protection from environmental damages and calamities is as much as a human right as protection from military conflicts (Booth, 2007). Therefore, humans should have environmental security to be protected from catastrophes of nature. Environmental security has given a new dimension to the concept of security which was only associated with power and war. It is also associated with quality of a human's life. Environmental security, according to Barry Buzan was also prevalent during Second World War and Cold war when nuclear power warfare was introduced (Buzan, 1991).

According to UNEP report on peace and security, environment was defined as the total external conditions that affect human life, development, survival and determine physical conditions needed for every living being to survive. Environmental security gained prominence due to several problems that have brought down the quality of human life like increase in population, scarcity of natural resources like fossil fuels and water, land degradation, loss of forests, urbanisation, increase in greenhouse gas emissions and air and water quality problems. Environmental sustainability is associated with the preservation of natural resources, which, if not duly preserve could result in an ecological crisis (UNEP, 2014). The relationship between climate change, natural resources, human needs and security was analysed by Scheffran. Accordingly, climate change creates a serious impact on natural resources. Climate change can potentially lead to depleting resources that are essential for a human's survival like threatening food security and then force people to take drastic steps or violent actions to avenge. The unrest caused to the social systems will impact human life and society. The challenge before the society is to cope with these problems that will have a profound impact on their lives (Scheffran, 2011).

Environmental security is therefore becoming a cause of international concern. Even before the 1990s the scientists had warned the international community that the earth's climate conditions were changing and the experiments could prove costly to mankind, which would be second only to the nuclear war. According to experts, the threat of environmental degradation and climate change is more severe than terrorism. There is a growing concern that climate change is affecting the earth's life systems thereby affecting water supplies across regions, agricultural productivity, and health of ecosystems, infrastructure, and monetary flow and migration patterns. This continues to undermine the efforts of UN and other world bodies to mitigate poverty (World Watch Institute, 2005). Not only the economic development, but also the stability of nations is under grave threat. Migration is known to be one of the foremost causes of international instability. Migration is a socio economic phenomenon that knows no national boundaries and has international repercussions. The migration to urban and better economies would lead to stress on the infrastructure of the adopted homeland and sometimes may lead to clashes and crimes. The Kyoto Protocol, created in 1997, is a global agreement on creating an environment security program, linked to the United Nations Framework Convention on Climate Change. The signatories the agreement abides by the emission reduction targets set by the Protocol. The protocol is an important step towards achieving climate related stability and security.

4. Evidences

There have been studies carried out to assess the relation between conflicts, terror and climate change. According to a paper by the National Bureau of Economic Research, it was put forth by the researchers that for every 1 degree Celsius increase in temperature, there would be a one percent increase in interpersonal conflicts like assault, robbery or rape, based on evidences collated from Africa. The evidence of conflicts between landlords and farmers in South Sudan strengthens the fact that majority of the conflicts in these arid lands are climate induced. According to scientists, heat also increases aggression in people and changes the way they think, which could be misused by many (Washington Post, 2014).

5. Climate Change as a National and International Security Threat

Climate change is viewed by several countries as a national security threat and the nation's world overview it as an international security threat. For instance, the USA recognises climate change as a major threat to all its national defence operations and training plan. In the last several years the country has borne the brunt of climate change with several natural calamities befalling on it. The rising global temperatures have led to increase in sea levels, extreme weather conditions and related events in the country. Africa is one of the main continents that are likely to face the stresses from climate change. The drought and water scarcity issues in the North African regions are likely to intensify, while the Nile Delta could face the risk of the rising sea levels and loss of lives for 5 million people in the next 30 years. The reduced rainfall in the Horn of Africa could result in further scarcity of resources and trigger more conflicts in this conflict zone. Due to the food shortages people can migrate to Europe in search of better living prospects (Zakieldeen, 2009).

The Arctic and the Antarctica are bearing the maximum brunt of global warming. The melting polar ice caps have caused increase in water-bodies and waterways for trade routes. The abundant hydrocarbon resources in the continent have generated interests from several European countries. For instance, Russia has planted its flag in the North Pole. The growing territorial claims by the super powers in the European region and increase access of the new trade routes through the Arctic may pose a security threat to Europe overall. South Asia has also been suffering from rising sea levels and threatening the lives and livelihood of almost of half of Asia's total population. The impact will be felt on the people who lose their livelihood and also fall prey to infectious diseases. The melting

of the Himalayan glaciers will be a cause of worry to people in the Indian subcontinent and parts of Central Asia, like Kyrgyzstan that has lost about 1000 glaciers in last 40 years. The melting glaciers tend to wreak havoc in the region and could give rise to further conflicts among people for a share in the available resources (ICIMOD, 2009).

However climate change crosses borders to become an international threat to world peace. The extreme weather events and related calamities world over will increase the chances of poverty, hunger, famine and conflict conditions in several affected countries. Conflicts would increase the threat to world security and cross border terrorism. The instability in several countries and the spread of epidemics is a result of global warming. Some of the major forms of conflicts as a result of climate change are briefly listed and discussed as below:

- Conflict over resources - The climate change brings with itself decrease in resources like reduction of arable land, depleting sources of renewable and non-renewable energy, diminishing sea food stocks, flooding and draughts. Water and food shortage can cause civil unrest, where the state would in turn start to blame the ruling government for its condition. The impact of the consequences of these conflicts could be felt more in areas which tend to experience demographic pressures. It could even lead to job losses (Scheffran, et al., 2012).
- Damage to coastal infrastructure - Natural calamity for example a tsunami or a typhoon can wreak havoc in coastal cities with well-developed infrastructure to aid the economy. The tsunami in Japan damaged the nuclear reactor plants in the coastal town, thereby aggravating the danger of uranium leakage and subsequent contamination of food and water. The nuclear reactor that served as a source of renewable energy and for defence purposes was thus damaged badly in the wake of the tsunami. The sea level rise and increase in such natural disasters could be a threat to economic and defence prospects of coastal countries, especially in the vulnerable Asia Pacific region, Caribbean and Central America. The donations made to the affected countries can cost dearly to the donor countries whose resources would also be depleting as a result. Therefore natural disasters such as these are never national and have an international impact (European Commission, 2008).
- Loss of territories due to border disputes - The receding coastlines as a result of the submergence of land can, in a few years could lead to loss of territory and small island nations may soon disappear. More territorial border and maritime border disputes are likely to take place as powerful countries are likely to take control of less powerful ones. Areas that are vulnerable to global warming related events like the Polar Regions could become more easily exploited due to global warming and its energy resources may be used off in a few years (Stephens & VanderZwaag, 2014).
- Migration - Climate change may force some inhabitants of a region to move to other places that are better placed in terms of availability of resources and better living conditions. People living in places with poor health conditions, scarce resources and unemployment tend to move to other places and thus create a demographic imbalance in the new land that they inhabit. Some countries that are vulnerable to climate change have asked the UN for an international recognition of such environmentally forced migrations (Witsenburg & Roba, 2007).
- Fragile situation -The government of countries that are prone to natural disasters and other negative impact of climate change generally have limited capacities to meet the challenges. If the government does not do much to meet the needs of its people then it could lead to frustration among the citizens. There could be ethnic and religious classes nationally that could even have cross border or international repercussions (Mearns & Norton, 2010).
- Energy supply- Energy resources are most affected due to the global warming phenomena and the competition to its depletion continues to be a cause of instability and concern for nations. The hydrocarbon reserves and fossil fuels are affected by climate change and continue to deplete. The use of nuclear energy for power generation is an option that governments can pursue however it would violate the non-proliferation treaties that most countries have signed (World Nuclear Association, 2014).
- International governance at stake-The multilateral international government mechanisms are at stake if the threats and conflicts arising out of climate change are not addressed. The climate change tensions and policies have caused a lot of international political tensions as no country wants to burden itself with the rising share of emissions. The international security is therefore stressed (Knieling & Filho, 2012)

6. Conclusion

From the above discussion, it can be concluded that climate change is an environmental threat and danger to mankind and his ecosystem. The only way that nations can minimise climate induced conflicts is to live and function in an environmentally sustainable manner. UN Security Council, along with the other G8 and UN member countries must co-operate in order to monitor the potential security threats as a result of this. A comprehensive global migration policy, especially applicable for regions that see climate induced migration should be formed. Enhanced support for mitigating climate change and ensure sustainability of resources, should be provided to the third world countries. Effective governance in mitigating climate induced conflicts and risks is an area that has been largely ignored in literature. However, in order to break the cycle of climate induced risks, the paper recommends effective governance especially in the third world countries. Adaptation to climate change should also become the way of life for several communities who live in places that are vulnerable to threats induced by the change. Instead of conflicts or migration, people should adapt to the change through education, socioeconomic developments, improved productivity and constant aid from the government.

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