

Samina Yasmeen[♦]

**Climate Change and Human Security:
In context of Global Economy, Culture and Conflict**

Abstract

The phenomenon of Climate change has been considered as the modern age's leading environmental problem and has been an issue of intense discussion. Considering the amount of scientific debate, the sum of political initiatives, and the interest created in the mass media, the predicted climate change resulting from increased carbon pollution and other gases is one of the major issues in the world today. The concern of those closely watching the debate is that it has generated more confusion than practical ways to minimize and adjust to such variations. It is expected to have harmful and long-term effects on the natural resources and the entire environment. Climate change is a growing challenge to global security and is expected to impact human health in many ways, including excessive heat, environmental pollution, food shortages and the severity of outbreaks of diseases. The focus of the present study is on numerous perspectives of 'Global climate change'; the causes, the anticipated consequences, possible mitigation strategies and the necessity to understand more about climate change and to raise global awareness of the problem. If these changes proceed at this pace, they will have the authority to weaken all the advancements made by our current civilization. The paper unpacks the concrete problems and how despite progress, improvement is exceedingly slow and insufficient. Many researchers and organizations sought to explore the influence of climate change in context of conflict, security, and cultural aspect. The methodology used in the research paper is secondary resources as the information has been gathered from articles, newspaper, websites, blogs etc. It is suggested that improving quality of life and overcoming climate change will improve the system of public health today, while at the same time reducing the negative consequences of climate change for next coming generations.

Keywords: Climate Change Consequences, Carbon Pollution, Natural Resources, Global Warming, Natural Resources and conflict, Industrial development and climate, Human Security.

Introduction Climate change is a broader term that involves both the global warming that is driven from the emission of greenhouse gases and the large-scale variability in weather patterns. Historically, the phenomena of climate change emerged in the early nineteenth century when greenhouse effects were first identified, and natural changes were suspected in climate. Since the time of the Industrial Revolution, human activities of emissions of greenhouse gases (which consists of more than 90% of carbon dioxide and methane) via fossil fuel combustion, deforestation, industrial and agricultural practices have resulted in climate change and global warming. In return, the impact of Climate Change phenomenon has been evident in the form of high ranges temperature change, substantial shifts in rainfall patterns, frequent and severe weather conditions such as floods, droughts, storms, sea level rise and heats waves that directly impact human health, environment, and overall natural system.

The industrialization activities of developed nations have had destructively altered earth's natural Climate due to the increased concentration of atmospheric carbon in the environment. It is evident from the fact that the most developed states of the world account for a larger portion of global greenhouse gas emissions. For instance, in year 2012 China was responsible for 27% of global carbon emission, followed by America with 14.5% and 28 European states with 10% of carbon emission (CIAC, 2013). However, the consequences of the Climate Change are more disastrous in developing countries of the world. For instance, In South East Asia, children and women are nutritional deficient, in Africa the agricultural sector is so devastated that entire harvests are ruined, in Latin America the natives are forced to leave their natural habitats, and similarly in Pacific Ocean Small Island states are coping with existential challenges. Furthermore, climate-driven inter society inequality is another challenge posed by Climate Change. This inequality results in unequal distribution of natural resources that lead to conflicts among different fraction of society. As glaciers are being melting, sea levels have been rising, and the world is becoming warmer day by day.

[♦] Dr Samina Yasmeen, Chairperson Associate Professor, Department of Pakistan Studies, Allama Iqbal Open University, Islamabad, Pakistan

Climatic change is believed to pose a major threat to global economy, peace, and stability, and therefore it has been identified as a “threat multiplier” and “accelerant of instability” as it is evident from the fact that in many underdeveloped states of the world, climate change first occurs, then economic destruction hit the country, then civil war and terrorism break out which in return threaten the security of the state. We can take the example of the Arab spring which was basically uprisings against the economic instability of the government like extreme poverty unemployment etc. The economic decline in these states was due to the drought, less water resources (more evaporation of water), reduced agricultural products, scarcity of resources in return high food prices. So, all these factors accelerated by climate change forced the people to come out on streets and protest the devastated economy of these countries. Adding more evidence, we can study the case of Syria where at first a horrible drought due to climate change hit the country for five to six years and then civil war broke out which caused social unrest and migration of thousands of people to neighboring countries. The social unrest and Diasporas in Syria created a vacuum for the terrorist groups, and they get involved in the civil war, threatening to undermine the government’s security and stability.

The consequences of Climate Change are posing serious problems to human security in terms of global economy, culture, and conflict. The questions to be explored are

1. In what ways Climate Change is considered as a threat to global economic security?
2. How is Climate Change causing Cultural Change in vulnerable regions?
3. How is Climate Change related to conflict and also explain the relation between Climate Change and Civil Wars?

This paper has three main objectives:

- 1) To examine the threats and challenges posed by Climate Change to Economical and Cultural aspects of State and Society.
- 2) To highlight the notion that how sustainability can be enhanced by addressing climate change issues.
- 3) To analyze the role of Peace building in climate Change affected areas

Secondary sources have been consulted for this research which includes Articles, Journals, and blogs. The descriptive, analytical methodology with comparative approach is adopted for this research.

Separate yet related research in environmental and peace studies examines climate change as a risk factor that could result in intensified economic and cultural concerns and exacerbating the risk of violent conflicts. Editor Thanos Davos in his article “Climate Change: Addressing the Impact on Human Security”¹ has asserted that historically, the idea of national security has been associated with defending the state's territorial integrity and democratic control from foreign military violence. This universal definition of protection, however, was developed at the time of the Cold War to also include energy, climate change and other environmental problems, and in general so-called non-conventional challenges such as food shortages, land erosion, habitat destruction, and ozone depletion. His paper highlights while climate change impacts everybody regardless of color, caste, nationality, sex and income status, a developing country’s economies and populations are more affected by its consequences, and climate change amplifies current inequality. He states that human migration from one climate zone to another is common as people have looked for conditions that promote both sustainability and expectations for a more prosperous life.

The article lacks to describe how vulnerability is important to the aspects of human protection surrounding climate change. Insecurity due to climate change isn't merely the result of environmental trends but in fact it is much more deeply concerned with the capacity of the population to deal with environmental change. Dokos neglected the fact climate change is universal in its impact but because of the lack of development and related human protection, developing countries will struggle greatly relative to developed countries, making the population vulnerable to additional threats, whether from extreme climate disasters, civil instability, and limited access to global markets,

violent conflicts, or economic uncertainty. Francis Galeão in his book “The Environment–Conflict Nexus”² has reflected on how climate changes have triggered a development in the national security environment after the world moved out of the Cold War Era. He suggested adding environmental factors such as climate change, scarcity of resources, natural disasters, etc. to the dynamics of national security. He argues that environmental pressures, especially in the developed world, have the potential to disturb states as they're more reliant on the climate for economic activity and lacks the ability to overcome these obstacles. Furthermore, he also illustrated how the gap between the developed and developing states has increased as the affluent countries have the resources to cope with the environment variations. Certain gaps were left by Francis like it is understood how conflict is unavoidable, but it is also the outcome of how governments, international institutions, and individuals react to climate change. Changing climate and war have now shaped people's opinions. His analysis brings forth the relationship conditions, but it fails to reveal its past patterns and providing potential situations and ways to change the historical course we are on.

Likewise, Scheffran et al. in “Climate Change, Human Security and Violent Conflict”³ elaborates that climate change has been labeled a “security” concern, and there's been evidence that the likelihood of violent war could be raised by climate change. Scheffran et al. argue that, in today's world, climate change is rapidly disrupting human stability and would do so rapidly in the future, by limiting access to the natural resources that are vital for maintaining livelihoods. However, a slight loophole the publication showed is that the developed countries could easily recognize climate change vulnerability as a danger to their national security. But the developing states have to face obvious challenges due to the changing climate as it is also possible that climate change would threaten states ability to offer jobs and programs to help people maintain their livelihood. Hence, there is a need for more studies with holistic approach about how it could threaten human security as a whole. Adequate knowledge is needed for the creation of adaptation techniques.

Climate Change and Global economic security: Climate change and the global economic security are the two defining elements of the today's age as both are necessary to get sustainable global development and therefore, cannot be considered in isolation. This is because climate change and economic Growth are highly inter-related to each other: such as, the ways where climate change affects the economic growth in short and long run, the ways economic growth drive the sources from which greenhouse gas emits, the effects of economic growth processes on people in different regions, and the ways economic growth could be affected by the mitigation of greenhouse gases. All these statements provide the evidence of the existence of the relationship between climate change and consequently economic development. Climate change contributes to higher temperatures, sea level rise and extreme weather that directly influence the economic growth and productivity in context of poverty, drought, infrastructure damage, mass migration etc. The Climate Change is considered as one of the most devastating threats in the economic progress of the poor states rather than developed states. Nevertheless, these developing states make a small proportion of the total amount of gas emissions which causes climate change events. These states have already weak economies, and the climate change impacts worsen their conditions as these poor states have less capacity to adapt to this climate change.

Discussing the consequences of Climate Change, many economists argued that climate change may initially contribute positively to the environment. To some extent, this aspect of climate change is right because the high amount concentration of carbon dioxide would create water stress in plants which in return may make them grow faster. However, this aspect of climate change is believed to get weaker with the passage of time. It is important to mention that though the initial economic effects are positive, it does not mean that the emission of greenhouse gas should be subsidized. Moreover, most of the economists maintain that currently, the impacts of climate change are maybe not very destructive but are not negligible. This is because even a small drop in overall economy is considered as a real concern for global welfare. Despite some winners at the beginning level of climate change, the overall consequences and impacts of Climate Change on the growth is considered negative in the long run. Initially, the response to cover the economic loss may be positive for overall growth, but once the consequences get permanent to the environment than the world economy will be crippled down badly and will result in huge monetary loss.

Many economists suggest that states must move their industrial business to safer ground based on climate friendly policies. Initially there is possibility of short-term business loss in doing so, however if not done then there would be permanent loss. With increase of temperature, the damage will also increase, causing a drop in the productive capacity of the world economy. The consequences of high range temperature change and global warming are to be widespread and extensive due to the economic, sociocultural, and integration of the world's economies. Climate Change may increase the severity as well the frequency of economic damages in form of property and infrastructure loss, productivity loss and inflation, poverty and food security threats, energy demand etc.

One of the most prominent economical aspects of climate change is the increased inflationary effects globally. As the climate gets warmer, the shortages emerge in agriculture sectors as more droughts occur frequently that cut crop yields in regions where food production is vital. The rise in the global warming system would cause many regions uninhabitable where mass migration would occur. Along with the socio-economic and political aspects include higher demand of already reduced land.

As climate change results in extreme weather, the energy demand is likely to get increased globally. The energy demand includes both cool living and stable environment during extreme summers and warmer environment during harsh winters. Climate change has devastating effects on the insurance industry as the global warming continues to increase. The insurance Industries all over the world, have already felt the consequences of extreme weather conditions on overall output; the damage caused by the weather-related events pressurizes further the financial companies to cover the damage costs.

Economic Cost Benefit Analysis of Climate Change: To analyze the economic pattern of Climate Change, economists have had attempted to explicate the global climate change in terms of cost-benefit analysis. However, there are some economists who have opposed the idea of applying cost-benefit analysis as the prudent action would go beyond their models of advice. Explaining the cost benefit analysis, the researchers contemplate the impacts and consequences of increased carbon emissions in contrast to the cost of policies aimed at the reduction of carbon emissions.

The CBA is one of the main and widely used pillars of the economic analysis of climate change. It includes identification and examining, quantifying along with valuation in terms of monetary costs and benefits particularly associated with a policy or project aimed at limiting the greenhouse gas emissions. In cost-benefit analysis framework is developed with the purpose to evaluate whether the cost of implementing a policy is greater or less than the benefits that would be gained from it. It involves comparing advantages as well as the disadvantages of a particular policy along with the comparison between different alternative policies. The economical aspect of CBA includes both the financial and the social objectives. On the one hand, its aim is to achieve a monetary return and on the other hand it promotes the betterment of population. Without proper policy intervention, greenhouse gas emissions can be expected to continue rising and the earth will continue to get warmer and warmer. So, a strong and effective principles are required first to stabilize the excess emissions and then to decrease the CO₂ emissions in the coming years. Cost-benefit analysis enables decision-makers and economists to assess and evaluate costs caused from the consequences of climate change scenarios. Using the results of the given estimation, decision-makers and economists select adjustable approach in regions that are most likely to get affected by climate change impacts.

As economists and decision makers attempt to calculate the cost of Climate Change in monetary context (GDP) but there are various inherent constraints and challenges to this process. The problem is the phenomenon called "uncertainty" which is central to the cost benefit analysis of climate change. This is because the uncertainties are unknown, vast in which negative impacts are higher than the positive impacts.⁴For instance only a single incident of hurricane can result in tens of billions of damages along with huge loss of life.

Cultural Consequences of Climate Change: Throughout history, at some points of record climate has performed a first-rate position in shaping lifestyles and tradition on our planet. Climate is described through numerous elements that supply the standard situations located in an area throughout the years. These factors are intently associated with

the capabilities of the bodily panorama in place and its region on earth. Climate additionally produces the amazing environmental variety discovered on earth. Seven billion people living on an increasingly crowded planet, the effect of humanity is so huge that humans can get a position to persuade the international climate. Our huge presence on the planet leaves at a precise second in time while our moves have a large effect on climate than nature.

A culture is critical for the mitigation and an adaptation to the climate change. A climate alternate is set adjusting to dangers in adjustments spring up from converting weather and a climate. The adaptation and the mitigation targeted components of a climate change such as dangers to lives and livelihoods. Culture performs its components in framing a climate change as a phenomenon of difficulty to a society. A culture is embedded within side of the dominant mode of the production, the consumption, lifestyles, and a social company that delivers upward push to the discharge of greenhouse gases. The result of these problems affects the climate change is giving meaning through the cultural evaluation of the technology and the risk. A culture is no less central to the understanding and implementing an adaptation. Cultures are dynamic, and reflexive, and are fashioned through the concept of a climate change. A culture and its evaluation are important for understanding the causes, meaning, and human responses to the climate alternation.

Culture plays a central role in energy, technology and mitigation. Our scope is surrounded in through cultural elements of dangers and model and within side the non-cloth methods and resources. Human beings allow significant and dignified lives that are at hazard from extruding. We examine the reality from where a wave of latest social sciences studies beneath cultural dimensions of climate change. The present-day responses fail to cope with those vital dimensions of weather patterns that weather alternatives can place a few critical factors of social lifestyles at danger and those factors may also flip boundaries to adaptation.

Climate change and cultural change :The significance of cultural impacts is intently associated with the level of attachment that people reveal in their region. Attachment to an area or a region is a concept that describes the relationship that people have with individuals and the surroundings where they live in. It is used as element in figuring out network durability. The attachment to an area is intently connected to a sense of belonging to a new community or network. The attachment to an area is a critical aspect in selections about migration.

Individuals with the place attachment may be mentioned on the destiny of transferring from their domestic communities. The continuity of an area may be a vital aspect in keeping the identification. Discontinuing the identification is related to grief and strong social effects associated with loss. Migrating to the new regions to stable profits can make a contribution to an edition procedure via new financial opportunities. Migration can also decrease the blessings though growing economic and emotional pressure and the weakening social systems in each supply and vacation spot communities. Cultural team spirit provides means to become aware of the crossing cultural styles in how people conceptualize climate change, and it offers the approaches of belief at each nearby local and worldwide scales. Climate Change is a global matter. The change in climate has special consequences on numerous countries. The climate change guidelines of these international regions might be related to their traditions if the connections among factors exist.

Culture performs an essential role in human responses to environmental change. Those responses rely on the quantity to which societies see themselves as a separate shape of the physical or herbal environment. They have an impact on the culture on the style of the communication; it additionally impacts the content material of the message. An international climate change politics can offer a clean instance of ways cultural differences. These structures are not constrained from human impacts as free in the relation to human beings. The culture can also serve as a useful resource in two methods, in a relation to the management and relation to the improvement of governance processes.

Human societies have skilled a couple of climate modifications. Those modifications can assist us to recognize the dynamic interactions among the climate and the society. The standards of a cultural adaptation are unbiased of the sources of climate change. A climate change adaptation is a reaction to global warming. The social and cultural impacts of climate change in Tuvalu can make contributions to the competence-base of the psychology of climate change.

Role of culture in Climate Change: In an addition to the protection and the mitigation, the growth of an adaptation is turning into the point of interest of discussions of human responses to climate change. Climate Change depending on the cultural fabric of a human organization concerned for the devastating implementation. The culture of any institution must be satisfied as a strong concern to the consistent transformation. Cultural patterns are the various elements that distinguish human organizations and businesses and play a vital role within the capacity of those businesses to deal with environmental changes.

Climate change can affect the health and well-being of local tribes in a lot of ways. Climate change makes it more difficult for tribes to get admission to secure and the nutritious meals consist of traditional meals critical to tribes' cultural practices. Many tribes have lack of access to safe and clean consuming water in regions. Climate change is predicted to increase health risks related to water quality issues like infection and decrease the availability of water throughout the droughts. Climate change threatens the cultural identities of domestic people by affecting the natural and environmental sources of tribal areas.

Climate change makes it tougher and more expensive for humans to ensure their homes, companies in the danger susceptible areas. Insurance is used to protect the human beings related to climate change disasters. We depend on insurance to defend investments in actual estate, agriculture, transportation, and the utility by costs throughout the society and give a boost to it. Climate change projected to boom the frequency and the depth of excessive climate patterns.⁵

The culture and climate adjustments consist of threats to cultural belongings. The culture and the identification are hard to get into a public policy. The significance of the culture is a vital factor. The demanding situations deal with cultural dimensions through the people and a community involves in figuring out the desires of adaptation policies and form their approach of implementation. The cultural dimensions of climate change are ignored, and each adaptation and the mitigation reaction fail to be strong due to individual matters and communities.

Impacts of climate change and variability in cultural resources : Numerous areas consist of many cultural assets that can be touchier in converting weather, along with conventional practices and the heritage. Managing cultural services and lands beneath the effects of climate change offers a grand undertaking to managers to keep quite a few sources for education, leisure, and generations. In an order to address the demanding situations of climate change, the NPS climate change software mentioned an approach that includes weather science, a version, mitigation, and communication.

Some groups are suitable to climate change due to the fact to be had land is bound to the barriers of reservation and tribal groups lack on monetary resources had to spend money on adaptation measures. Climate change influences to the availability of sources threatens the increase of few tribal cultures. Traditional ecological information is shared via ways of the mean of tribal and domestic groups and contributes higher expertise of the climate change. Partners with tribes, states, NGOs, and different entities breathe the cultural assets in the northern areas threatened through climate change and expansion strategies.

Climate change is affecting our lives in each effective way. We are experiencing extreme climate events, perverted air and water quality, mitigation in sickness patterns, livelihood outcomes, and the effects on food security. Cultural anthropology says, water is to fish, so is the culture to humans.

Our houses had been historically constructed on the front to lessen the effects. The new systems had been constructed at the ground without an interchange that can be flooding. If we get a sea-level the upward and coastal flooding, there can be an extreme effect on us. The natural sources might change in the range if the weather patterns remain within the region.

Climate change and cultural heritage: The lack of the cultural practices can reduce social observation and extensive mental fitness challenges demanding the situations due to which an individual's culture relates to the belongings of a community. Climate change is uprooting groups and contributing to the lack of the historic way of

life. Climate change is cutting people from their cultural roots. Cultural flexibility can lessen several effects of climate change. Our cultural history is being threatened through the means of climate change. Preserving the cultural heritage is a significant matter to recognize the impacts of the climate change on our civilization. Climate change is a long-term variation in weather and climate patterns.

The culture is facing the greatest threat which is climate change. Both cultural and natural heritage is threatened by floods, the increase of fires and droughts. The practices of cultural heritage help societies to reduce and adapt the climate change. Cultural institutions play an important role in influencing the climate action. Culture is a resource for the reduction of the climate change and the adaptation. In the climate crisis, we cannot afford the organization of culture into the global climate action

Climate Change and Conflict: The end of the Cold War seemed to stabilize the culture of war and destruction caused by it. Following years, the world experienced decline in armed conflicts until recent times. With climate change and its unfavorable consequences for agricultural productivity, economic activity, and food security, concerns are growing that the future may see a change of the trend and bring more tension and uncertainty.

Climatic changes are believed to pose a major threat to peace and stability. It is not indifferent to think that climate change may have an indirect effect on conflict, widening the security gap between affluent societies and societies that are already seen suffering from violence and instability. Affluent societies due to abundance would be able to cope well with the changes whereas the poor countries will be unlikely to achieve successful adaptation on their own. For this purpose, peace-building in insecure corners of the globe is perhaps the most powerful climate adaptation strategy.

It has been stated in many articles that climate factors are found to increase existing stresses which in turn increases the likelihood of violent conflict. There are many current challenges and vulnerabilities such as the multiple kinds of social, economic, and political instability, the lack of income and employment opportunities of working men, or ethnic tensions. The most common results recorded when short-term climate shocks or long-term climate-related loss occurs are poverty and suffering. The long term climatic changes puts strains on natural resources and in some circumstances provide an opportunity for people to cooperate more. However, there's also a slight chance that rising tensions of scarcity may often lead states to war because of the deprivation.

With the rise of global temperatures due to climate change, there it also seems to be an increasing number of conflicts around the world. So what evidence is there that ties climate change to war? Many studies have shockingly indicated that climate change makes wars more likely, such as civil war or genocide. It should be noted as mentioned above that climate change alone has not been shown to increase the chances of conflict, but climate change with other many challenging economic, political or social circumstances can increase the risk of conflict. Climate change is considered as a multiplier of risks which means it magnifies the challenges the world already faces. With heightened droughts, storms, or heat waves, factors like hunger, political turmoil and crime are multiplied.

The complex connection between natural disasters and conflict : The dynamic effects of disasters on conflict and political stability are examined in many studies. In certain cases, sudden disasters are linked to the emergence of political unrest, such as those with weak institutions and disruptions in governance. Disasters that are related to climate factors have caused significant economic damage with outbreaks of armed conflict up to three months after the event in highly ethnically fractionalized countries indicating “the cooperation between the natural disaster occurrence and ethnic fractionalization” (Schlesinger et al., 2016).

In Chile after the 2010 earthquake, (Carlin et al.,2014)⁶ investigated that the catastrophe was found to have weakened a relatively new government and the post-earthquake era along with enhanced social networks contributed to violent political and social conflicts. There's also some proof that, following disasters, some political regimes might become more authoritarian.

Wood and Wright (2016)⁷ find that disasters could even exacerbate the repression of the government, especially in areas most affected by the crisis, since disasters can provide an incentive, both around the disaster itself and more broadly to express grievances. In turn, this may lead to a more aggressive government response to counter threats and keep control.

Researchers have investigated since the 1970s how disasters provoke or intensify violent conflict. Surveys on the environment, protection and fragility nexus in the 2000s focused on establishing a clear causal link between climate change or extremes of weather/climate and conflicts, producing ambiguous and sometimes conflicting results. Since then, focus has expanded from causation to understanding the complexities between climate-related risks and the conflict's political and socioeconomic drivers. In numerous scientific papers, the impact of natural weather variability and change on threat profiles has been explained.⁸

It is not hard to believe that conflict situations increase sensitivity and vulnerability to climate-related hazards because it is hard to cope with existing effects and anticipated threats in conflict settings. For example, in sub-Saharan Africa, exposure to violent conflict can change and obstruct access to livelihood opportunities, such as limiting access to water and agricultural land. It may fully displace populations from their livelihoods, putting individuals at greater risk of experiencing natural and climate-related disasters or violence.

On the other hand, disasters will also speed up political movements that contribute to sociopolitical transition. Like in India following the 2014 floods, public frustration over poor state response to flooding resulted in the ruling parties to lose the upcoming elections. In other situations, natural disasters have led to an outbreak or continuation of military conflict where armed conflict has already arisen but can also encourage cooperation and conflict de-escalation for restoration purposes in restricted regions. (Brzoska, 2018).

People displaced by environmental stresses are more likely to encounter conflict at their destination than those affected by changes, as they become aware of their deprivation status and poor adaptive capacity in relation to better-off people over the years. Link et al. (2018) believes that violence or 'violent attitudes' have indeed developed significantly due to droughts in Kenya, where community rules for the distribution of resources have not been accepted widely.

Some studies do not depict violent outcomes that result from climate-related disasters, noting that such events may create cooperative behaviors at the local level again; these are dependent on underlying conditions. For example, coastal land was redeveloped after the 2004 Indian Ocean tsunami; promoting financial insecurity for people who historically relied on the sea for their livelihoods; or land was recognized as part of a buffer zone but then used for economic uses.

As described above, it is presumed that climate change does not directly cause conflict, but it is somehow fueling already established social, economic, and environmental factors indirectly raising the risk of conflict. For instance, a scenario from a laymen's daily life, when cattle herders and farmers are forced to share scarce resources because of a changing environment in places that lack strong governance and democratic institutions can raise tensions and end up in a disturbing situation.

A change in the crops being grown may be sufficient in some circumstances, but it will also require massive social, cultural, or economic changes to respond to climate change in others. It may be necessary to change an entire agricultural system, or it may be necessary to fix diseases new to a particular location. In times of war, efforts made to adapt tend to be limited. In a situation of conflict, the authorities and institutions are not only fragile but also concerned about security goals.

Most often warfare directly attacks or destroys the natural world which cannot be ignored as it is not a desired outcome. Attacks can cause pollution of water, soil and land or release toxins into the air. Explosive war remains can pollute the sources of soil and water and damage wildlife. Such deterioration of the environment reduces the

strength and capacity of people to adapt to climate change. Further environmental destruction can also result from the indirect consequences of violence, such as: authorities are less able to control and protect the environment; large-scale migration puts resource strain; natural resources can be used to support war economies. People in Fao, south of Basra, Iraq, blame the destruction of palm trees for military purposes during the Iran-Iraq war for their water and farming problems.

Conflict can also sometimes lead to climate change. The degradation of vast forest areas for example, or the disruption to infrastructure such as oil facilities or large industrial plants, may have adverse effects on the environment, including the release of significant amounts of greenhouse gases into the air.

Catalyst for Conflict: Since independent anthropologists, decision makers and individuals who are addressing the matter of human conflict states that the climate is typically defined as only element amongst others. Total absence of progress and bad governance are the causes of violence since they appear more important to them. However, some claim that the environment is more specifically concerned.

The debate has been gathering momentum after the official of the United Nation stated: “the Darfur conflict started as environmental collapse, partly due to climate change,” putting in “it should be no coincidence that during the drought, the violence in Darfur exploded.” Before then, Arab tribal people lived in harmony with stable farmers. Later, a study by the United Nations Environment Program related climate change to tensions around the Sahel region. The study revealed that the effects of shifting weather conditions on the supply of human assets, along with elements like rise of population, bad authorities, and the complexities of land ownership, have contributed to intensified conflict for limited natural resources. The most notable factors were fertile land and water and this in turn developed frictions and disagreements between populations and survival classes.⁹

Another of the greatest studies conducted in 2015 related temperature changes to the frequency and range of types of human conflicts. Marshall Burke, a scientist at Stanford University, and colleagues analyzed 55 reports and their different types of crises, attacks to protests to wars. Analysts have highlighted how global weather shifts impact the incidence of unrest and abuse in a number of circumstances. It was also known that during extreme weather, violent crime in cities tend to rise. Other studies illustrated those famines able to accelerate scenarios in a way that makes conflict even more dangerous. It was a catalyst, they argue, a prolonged drought that forced farmers to flee the countryside for towns preceded the latest war of Syria.

Increases in the risk of civil war: Rise in various climate disruptions such as floods, droughts, or fires are further stressing and threatening the livelihood of already vulnerable communities. The given results give evidence that indicates heat rise to increase the risk in civil war. In 2007, the conflict in Sudan's Darfur region was defined by UN Secretary General Ban moon as the first climate change conflict in the world. The belief was that this dispute led to water scarcity from modified rainfall patterns resulting from climate change. His thinking illustrates observations to date that in years with lower rainfall, the rate of conflict is probably higher. Research teams at Princeton University and UC Berkeley observed that an increase of even 1 Celsius (1.8 Fahrenheit) in average annual temperature resulted in a 4.5 percent increase in the civil war that year. After World War II, there was a global increase in prevalence of civil war, with armed conflicts even having a higher number of fatalities than international wars.¹⁰ Civil wars are deadly, and they are being made more common by climate change.

The future global heating will be a 'risk multiplier' for instability; the Syrian civil war has become a frequent frame of reference, presenting seemingly solid evidence that we still have such conflicting consequences. Since 2011, Syria has been involved in excessive violence. Professionals believe that a harmful drought plays an important part in initiating the conflict. Climate modeling at UC Santa Barbara reveals that gas emissions have produced dryness twice as much as natural variability. The country is also affected by drought and famine. Although considering reasons such as economic deprivation, oppressive government, and the question of division in the uprising in Syria, the extreme drought is playing a major role. The change in weather had increased, and as farmers were forced to migrate to towns to obtain food for their hungry families, tensions began to accumulate. A temperature changes

fueled drought including Syria's weak economy, poor governance, and social difference created the right patch of land for warfare.

In numerical figures, a temperature rise of 1 percent corresponds to a civil war increase of 4.5 percent in the same year and a 0.9 percent increase in the next year. By 2030, focusing on the estimated evidence from the 18 climate simulations used, the occurrence of violent conflicts in the region will rise by about 54 percent.¹¹

Scholars have asserted enough on how the inadequate resources always lead to conflict. On the contrary, it is also suggested that scarcity of water or other critical resources might do the opposite, encourage cooperation, as it has done in the Lake Chad or Nile Basins. Individuals may decide to fight if people experience climate threats or shortages, but they may also decide to cooperate. For starters, if we look at the 2004 tsunami in Southeast Asia, what it created was more cooperation between states and peace in Aceh.

There have always been examples where people have shifted; either because of human or naturally caused stresses, migrated to areas where they can experience better livelihoods. We should be able to resolve human migration and dislocation problems, whether caused by civil wars or climate change. There is not much variation operationally; UN humanitarian organizations need to give the same security and defense elements to immigrants: food, shelter, medications, trauma relief, etc.”¹²

The importance of being cautious: More and more, climate change is being spoken about as a threat to US national security. We are warned in the mass media of food shortages, water crises and catastrophic floods in vulnerable regions requesting American humanitarian assistance or military response. The Pentagon's military strategists take the notion of climate wars seriously.

As Bradford Plummer warns in *The New Republic*, the “security argument” is also used without clear analysis and facts to educate people about climate change. It is important to be more cautious than before to evaluate the future effects of climate change for violence at a time when the risk of failure is increasing. The authors of this recent paper agree that more study is needed to properly grasp the link between climate change and violence. It will potentially take several years to collect evidence such as those obtained to build the case that humans have triggered climate change and require the input of the best scientists from a variety of disciplines.

It would be best not to mix armed conflict and climate change, though, when considering the root causes of human misery. The causes of military wars vary from the issue of climate change and need to be handled accordingly. The consequences of the two could be similar, as many correctly point out that dislocated people and helping war refugees and climate refugees can and should employ the same management techniques.

One of the most serious global challenges to stability and prosperity in the 21st century is climate change. But how many individuals will list this as a crucial player in national welfare and international relations? All areas of defense, peace building and development are affected by climate change. The consequences of climate change are already having a negative impact on vulnerable populations, as well as the capacity of building of societies and governments.

This effect may well be considerable if--

- It causes a decline in the livelihood of people
 - It affects the strategic considerations of armed groups
 - Elites use it to tap social vulnerabilities and resources
 - It raises levels of migration and people's displacement.
-

Humanitarian action must adapt: International humanitarian law (IHL) seeks to ensure that the natural environment is protected. Through Additional Protocol I to the Geneva Conventions as early as 1977, the States granted environmental protection against extensive, long-term and severe damage. Explanatory Watch mentioned on the rules of war and nature:

More consideration for the laws of war will reduce the damage and dangers of climate change to conflict-affected populations. Climate change, for example, can cause water shortages and reduce the supply of agricultural land. IHL protects these resources from further conflict-related aggression by banning attacks on items crucial for the protection of the civilian population, such as farming fields and drinking water.

The climate crisis is now changing the nature and severity of humanitarian crises. Humanitarian organizations are also unable to adapt and will not be able to address the growing demands that are not being reduced because of climate change. To reduce climate change, major initiatives are required in the form of major institutional and structural reforms, political will, good governance, investment, technological expertise, a change of mindsets. In attempt to optimize climate change, humanitarian organizations must collaborate. Although citizens in conflict zones are among the most vulnerable to climate change, the gap between prosperous and poor countries for climate action remains. To help people, adjust to climate change, a larger share of climate funding needs to be distributed to areas affected by conflicts.

Over the last few years, global warming has contributed to a complex combination of greatest ecological influences. Rising quantity of environment-related disruptions, including wildfires, additional to regular and intense dry spells, hefty rainfall, and water floods, have led to pressures, and comparatively few family disputes, particularly in the dry seasons, have become more serious. Policymakers, intelligence experts, scholars or development organizations operating in the field do not have unity. While family conflict has been part of life for years, farmland has decreased, and temperatures have gone up, entailing increased competition for dry land and coast. Conflicts and uprisings around the world are gradually related to environmental degradation, resource shortages and temperature rises. According to some writers, the dispute in Somalia, Yemen and Syria are thought to originate in uncommon and extraordinarily extending dry spells.

Environmental Peace building: Trying to develop peace has never been simple, but there is still a strong awareness that in nations where climate change is exacerbating social and political conflict, the problem will become even more difficult. In 2018, eighty percent of the states with the most assets for multilateral peace building operations are situated in particularly vulnerable regions of climate change. The complexities of modern conflicts and the likelihood of violent confrontation are directly influenced by climate change, and the role of peace operations in establishing and sustaining stability is becoming highly difficult. This relationship has been seen in recent years in Somalia and can also be seen in other countries such as Afghanistan.

One way to generate climate change mitigation to peace-building is to help the new government improve its capacity to cope with climate risk, as far as the government's position is concerned. For example, the functioning of weather and climate services could allow climate data to be gathered and analyzed, which in turn may help strengthen early warning systems to prepare for and mitigate the impact of events such as hurricanes, floods, the spread of hunger and diseases. Similarly, one reason why Rwanda is not capable of acknowledging climate danger is that the collection of weather data literally came to an end during the 1994 genocide and was never entirely recovered. Consequently, the state lacks the necessary data to set policies and increase competency in this area.

The framework for social and economic development offers the greatest possibilities for bringing climate change adaptation to peace building. In Rwanda, for example, where in 1994 there were more than 2 million refugees and IDPs, many families returned to rivers and steep hills, expanding their exposure to climate-related threats such as flooding and landslides. Hence to keep the vulnerable families and groups safe, it is highly essential that certain important measures are taken within a nation through government involvement. Education will be the secret to increasing adaptability at any stage in human development. Students at all levels of education should be exposed to emergency risk prevention and climate risk management.

In general, the writers argue that the introduction of climate change adaptation into peacekeeping missions is highly beneficial and that some of the challenges encountered by countries such as Rwanda may have been avoided if adaptation to climate change had been integrated into peace building in the past. Immediately after the genocide, migration patterns led to a dramatic reduction in forested land, a rise in very steep hillside agriculture and river settlement, both of which intensified the risk expected by climate change research to heavy rains and severe droughts.

The usefulness of introducing climate adaptation factors into peace building is advocated on many levels because the two mechanisms are identical in important ways: both rely on sustainable development and stability, and both support the creation of a longer-term perspective, while requiring enough flexibility to respond to changing conditions.

Consequently, the impacts of climate change are progressively eroding states' ability to avoid conflicts. To explain more precisely how climate change can impact the effectiveness of peace-building operations, three key goals of peace operations can be briefly examined: (a) providing peace and security; (b) improving governance and justice; and (c) ensuring social and economic growth.

Global team of experts reported dramatic weather amendment can end up to a lot of tensions henceforward. Yet red heat, drought and lowland increase from other factors are hard to eliminate. Alex de Waal, executive director of the World Peace Foundation at the Fletcher School of Law and Diplomacy at Tufts University, who researched dry spells and scarcity of foods in Darfur in the 1980s, says that, although several independent reports support a relationship between global warming and violence, there is no hard science evidence to connect the two directly. In both sides, the debate is strong and the proof is disputed. Yet the results are being handed down by politicians and intelligence officers at the upper class of the United Nations, the international armed forces, security, and environmental institutes.

Conclusion: In recent times, scholars of international relations and other fields have started to think of security more widely, moving from a state-centered view of national security to a human security concept that emphasizes individual and human well-being. Human security simply refers to safeguarding citizens through an appropriate organization from any violence, conflict, development, and disease. Climate change has a greater effect on developed and disadvantaged countries in the world because they do not have full-fledged adaptation technologies to tackle issues related to climate change. Perceiving climate change through the lens of human security binds poverty, vulnerability, equality, and conflict to concerns such as melting glaciers and carbon pollution. The appearance of more destructive climatic changes, droughts, fires, deaths of wildlife, flooding of rivers and lakes, the creation of displaced people and the destruction of the ecosystem and economic resources, especially in developing countries, are evident due to climate change. The American Security Project has published initial findings on Climate Change and global security defense, outlining how governments worldwide are planning and calculating the strategic threat of Climate Change, integrating the attitudes of the security departments towards Climate Change issue. Hundreds of millions of lives, countless animals and habitats, the survival and stability of the economy, and this planet's potential sustainability are at stake. Climate change is, luckily, fixable. We've got technology. We've got science.

Furthermore, we require leadership now and the bravery to reverse course. The basic idea is that global emissions of CO₂ and other compounds that lead to climate change should be significantly reduced. Nations and societies must work together to face the challenges of climate change. The central tenets of the adaptation processes that are made possible by organizations are the exchange of knowledge, recognizing functional necessities, addressing basic and ethical responsibility.

REFERENCES:

1. Forsyth, Tim and Schomerus, Mareike. "Climate change and conflict: a systematic evidence review." *The Justice and Security Programme*. September, 2013.
http://eprints.lse.ac.uk/56352/1/JSRP_Paper8_Climate_change_and_conflict_Forsyth_Schomerus_2013.pdf.

2. Francis Galeão, "The Environment-Conflict Nexus" <https://www.springerprofessional.de/en/the-environment-conflict-nexus/15955252>
[https:// www.files.ethz.ch/isn/91296/PolicyPaper_CC_HSN.pdf](https://www.files.ethz.ch/isn/91296/PolicyPaper_CC_HSN.pdf)
3. Mason, Michael. "Climate change and human security: the international governance architectures, policies and instruments." *London School Of Economics And Political Science*. n.d. <http://eprints.lse.ac.uk/64751/1/Climate%20change.pdf>
4. Naidoo, Kumi., "Carbon majors cannot put their interests before humanity's survival" *AmnestyInternational*, Dec 12, 2018, <https://www.amnesty.org/en/latest/news/2018/12/kumi-naidoo-testimony-at-philippines-human-rights-commission-investigation-into-carbon-majors-climate-change/>
5. Nazrul, Islam. "the climate change impacts on adaptation and mitigation", *climate adapt*, october 10, 2014. <https://www.oecd.org/env/cc/39760257.pdf>
6. Qing hen, Chao. "scientific basis of climate change and its responses", *Global Energy Interconnection*, Oct 4, 2018. <https://doi.org/10.14171/j.2096-5117.gei.2018.04.002>
7. [Ryan E. Carlin, Gregory J. Love](https://doi.org/10.1177/1065912913495592), Elizabeth J. Zechmeister, "Natural Disaster and Democratic Legitimacy: The Public Opinion Consequences of Chile's 2010 Earthquake and Tsunami" <https://doi.org/10.1177/1065912913495592>
8. Scheffran, Jürgen and Hardt, Judith. "Environmental Peace building and Climate Change." *Researchgate*. December, 2019. https://www.researchgate.net/publication/338082888_Environmental_Peacebuilding_and_Climate_Change_Peace_and_Conflict_Studies_at_the_Edge_of_Transformation_Policy_Brief_No_68_December_Toda_Peace_Institute
9. Security Council. "Climate Change Exacerbates Existing Conflict Risks." United Nations. July, 2019. <https://www.un.org/press/en/2019/sc14260.doc.htm>
10. Thanos Dokos (ed.), "Climate Change: Addressing the Impact on Human Security" Hellenic Foundation for European and Foreign Policy (ELIAMEP) and Hellenic Ministry of Foreign Affairs May, 2008.
11. Therese, Richmond. "Climate change impacts in the United States", *United States environmental policy*. jan 19, 2017. <https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-society>
12. [Thorin M. Wright](https://journals.sagepub.com/doi/10.1177/2233865919888364), "Revisionist Conflict and State Repression", <https://journals.sagepub.com/doi/10.1177/2233865919888364>
13. Wade, Keith and Jennings, Marcus. "The impact of climate change on the global economy," *Schroders*, 2014 <https://www.schroders.com/de/SysGlobalAssets/digital/us/pdfs/the-impact-of-climate-change.pdf>
14. Watts, Jonathan. "Global heating: best and worst case scenarios less likely than thought," *The Guardian*, jul 22, 2020. <https://www.theguardian.com/environment/2020/jul/22/global-heating-study-narrows-range-of-probable-temperature-rises>