IMPACT OF CLIMATE CHANGE IN GLOBAL SECURITY

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Abstract:

With widespread droughts, tsunamis, frequent earthquakes, heatwaves, flooding and extreme weather changes, we have entered into a state of Anthropocene. This term well suits the current situation of human beings where they have become so powerful and chaotic that the future of planet is in their hands and they have the power to cause great geological changes. Today the climate is highly unpredictable and uncertain all because of the recklessness of human beings living on this planet. At present and in future we will bear witness to extreme catastrophes and climate related challenges where species will be on a verge to go extinct and there is a possibility for fresh water, food and energy to deplete completely. Due to this, conflict and instability will exacerbate and these challenges are what we call security issues. This will cause great problems not just for the people but also for the states. The research will focus on issues related to global security due to climate change and highlight significance of it in policymaking institutions.

Introduction:

According to the United Nations (UN), climate change is the biggest threat that modern humans have ever faced. It not only endangers the living species and biodiversity but also the socio-economic fabric of the society. This phenomenon has various implications on national security of the countries in general and for the world at large. Some of them include: political instability, economic crisis and social disturbance among others. It does not obey international borders.

Scientific evidence suggest that climate change is caused by the human activities and the impact of this is great. We can already see this in the Arctic where temperatures have been increasing twice the rate compared compared to the past four decades. Climate change manifest in various

ways including rising global temperatures, extreme weather events, melting glaciers and ice sheets, rising sea levels and changes in ecosystems and biodiversity. Today the greenhouse effect is increasing and there are more gases trapped in the atmosphere such as carbon dioxide. There has been an increase in migration of the animals and more natural disasters today such as the wildfires, Earthquake, tsunami etc the repercussions of climate change are great. Today we can witness extreme weather events such as heat waves, wildfires floods and droughts. If you talk about the heat waves then, they have become more common and more obvious in the recent years not only in Pakistan, but elsewhere around the world. Each day growing number of cases are reported of people dying or getting a stroke due to heat wave.

Climate change has put international security to a great threat as well. Every nation is now concerned and we are living in red code zone. Furthermore, climate change has also impacted biodiversity and ecosystems, altered migration patterns and it has increased risk of extension today. Our ocean is absorbing more carbon dioxide from the atmosphere which has led to an increase in acidity and this is harming marine life especially coral reefs which are dying today. Higher temperatures are causing faster water evaporation which are leading to longer and severe droughts in many regions of the world today, including Sindh, we have also noticed an abnormal pattern of rainfall sometimes, extreme rainfall events which are rising sea levels and on the other hand sometimes this is also causing flooding in coastal and inland areas whereas, other times there are no rainfall for prolonged period of time again leading to drought.

Climate change is an intra and interstate concern as they face crisis not limited to resources but extending out to and exacerbating ethnic and economic divides in societies. We need to address climate change situation otherwise it would be one of the main catalysts for conflict within and between states. Climate change can trigger resource related conflict and cause security issues. One question that often arises is how the resource rich nations will respond to climate crisis and international security, will they protect themselves from future competition and conflict? The extent and future of climate change depends upon four factors:

1) The extent of energy- how much greenhouse gases are present in the atmosphere
2) Availability of land- i.e massive amounts of deforestation that's taking place today
3) Impact of natural disasters
4) The extent to which climatic features react to changes in greenhouse-gas emissions in the atmosphere.

Climate change manifest in various ways including rise and global temperatures, extreme weather events, melting glaciers and ice sheets, rising sea levels and changes in ecosystems and biodiversity. Today the greenhouse effect is increasing and there are more gases trapped in the atmosphere just carbon dioxide. Moreover, as climate changes intensify there are more extreme and unpredictable weather events such as heat waves, wildfires, floods and droughts. If you talk about the heat waves then they have become prevalent in the recent years not only in Pakistan

but elsewhere around the world.

Climate change increases existing problems and vulnerabilities adding more to scarce resources, displacement and conflict. Due to this, regions face destability, causing competition for resources which further fuel humanitarian crisis and conflicts. Climate change is due to the rapid pace of change in the contemporary world. We can witness fast political and economic changes as well as technological changes and they are all bent on shaping geopolitics of the world. Today, we're not only witnessing new economic powers emerging but we're also witnessing a change in the landscape of geopolitics.

We also observed a shift in a political power structure of the world and we're continuing to see failing states, growing conflicts, cyber security issues, transnational terrorism, Maritime security threats, and threats to space-based assets. Climate change is not only about political values but it is about our production and consumption patterns. Of course, climate change causes international security problems as we can see that the nations are facing a challenge to build economic security, food security, energy security, water security and military related security all on the national level however the states have started to realize and face harsh truth that their own security cannot be in isolation of the others. Because we live in a global village all the states are dependent upon one another and their security is also dependent on each other. Today you're witnessing a rapid change economically, politically and technologically which is because the nations are trying to compete each other in order to attain scarce resources and national security on an international level. So of course, such rapid developments have caused fastest economies, more military expenditures and climate crisis.

Asia has more than half of the world's population and it's currently responsible to shape the future of globalization and climate crisis. Today China is the world's biggest greenhouse gas emitter on a national level. And Asians continue to increase their output of greenhouse gases definitely the climate change would be seriously accelerated. To tackle climate change is an international imperative not choice. Today, there is growing recognition that climate security is an important part of international security. There is a very clear link between global warming and international security.

Climate change is a threat multiplier which affects almost every walk of life. Today because of climate change almost all the countries are trying to expand their conflict prevention tools meaning that they're expanding their military, defense related strategies, ammunitions, chemical & biological weapons and they are reassessing their policies based on new realities. Almost all the countries should turn towards renewable energy use. They should try to reduce their carbon footprint and should foster energy efficiency and use energy effectively. They should also try and take steps that aim towards curtailing climate related conflicts and crisis. For example, the European green deal along with climate and defense related strategies and initiatives are trying to set goals in order to compact climate related crisis in the future. There is

a great link between Climate change and state fragility. A great emphasis is pleased on the armed forces to keep energy efficiency as their main priority.

The European Green Deal aims to make it as a global leader in fighting and compacting climate change. Climate change causes instability which puts in threat geo politics including trade security interests and global economy which further accessor bases challenges for number of states EU for example has aimed to work with all the states and countries to increase climate and environmental resilience in order to prevent such challenges from causing conflicts, forced migration food insecurity national international security problems.

There are many challenges that nations face while addressing climate change and security issues because they require a holistic approach and unless nations and organizations don't collaborate these issues will prevail. Nations need to understand what one solution works for some wont work for the others because of difference in location, size, area etc and short-term solutions no longer are effective.

Moreover, fragile states often suffer the most. A study by UNDP revealed that between 2014 and 2021 such states received only US $2.1 per person compared to $161.7 per person for non-fragile states. In order to overcome such challenges finance, policies and climate action needs to be addressed. Governments should plan more effectively to tackle climate change and its impact. Climate finance mechanisms should be at forefront in investing in fragile states and territories that are affected by conflict.

Therefore, the need of the hour is to undertake steps for international cooperation. If not acted upon it timely, climate change can exacerbate destruction. All the countries from developed to under developed ones should play their part to mitigate the risks associated with this issue. International forums can play a pivotal role in this regard. Proactive measures are required to mitigate climate change and to strengthen global governance. There have been many global and regional policy platforms that have been highlighting the impacts of climate change on security and these include UNSC, African Union Commission, European Union, the Organization for Security and Co-operation in Europe, NATO etc

Research questions:

1. How does climate change impact the likelihood of interstate conflict, and what are the most vulnerable regions?
2. To what extent do existing international security institutions adequately address the security threats posed by climate change?
3. How can international cooperation be strengthened to mitigate the security risks associated with climate change, and what are the key challenges to achieving this?

Methodology:

The approach used involves analyzing large data from various resources including documents and reports from IPCC, NATO, UN and organizations, books and websites available on climate change, international security and economic indicators, to identify patterns and correlations between climate change and security. It also involves comparing different countries such as South Asia, Arctic, Middle East, US etc and other countries to understand how climate change impacts security and how certain regions are more prone to climate change.

This is a qualitative research design where different regions and cases are compared to draw a better understanding of the relationship between climate change and interstate conflict whilst also keeping in mind regions that are more susceptible to climate change. Purposeful sampling is used to select a few regions for this paper to draw a better understanding of the relationship between climate change and international security. The regions selected are more vulnerable to conflicts as they have scarce resources, active and fast glacial melt, rising sea levels or shared water bodies. They are also selected due to their geographical location.

Discussion

Climate change has a great impact on the global security of the world. It acts as a "threat multiplier" and exacerbates social, political, economic and ecological problems. Furthermore, it intensifies interstate conflicts which often occur due to resource scarcity, migration, competition over land, water etc. Usually in countries where there is weak governance the competition over scarce resources exacerbates problems and lead to interstate conflicts. These problems occur due to severe droughts, changing precipitation patterns, over land etc. furthermore, climate change also damages and puts at risk ecosystems of the nation's sharing it. For eg countries sharing sea or rivers are more prone to conflict as the upstream nations have more control over it eg India. Rising sea levels also cause so much problems as it can trigger disputes over maritime boundaries and economic zones as discussed above over South China Sea and Arctic where melting of glaciers and ice opens new shipping routes and provided access to underwater resources.

The impact of climate change is not evenly distributed around the world. Many countries that have contributed least to the climate change are the ones who are most affected. Low lying island states, coastal regions and arid regions are particularly vulnerable to sea level rise, flooding and drought. There are some regions which are more prone to conflict due to climate change most notable include: South Asia is thickly populated and heavily dependent upon rivers, India and Pakistan are rivals which have a constant conflict over fresh water supply as they share water bodies, with India having an upper hand. So South Asia is at a great risk of climate caused interstate conflict. Next, Middle East and North Africa two regions with vast deserts, heat and little to no agricultural produce. They are among the world's water scarce regions; we have seen constant conflict over Jordan and Euphrates River. Arctic though frozen is of a great strategic interest to many countries. The competition is between Russia, Canada and US who

want to get their hands on the untapped resources.

In many areas, the impact of climate change serves as a catalyst for instability and conflict. Africa, Middle East, Asia is already witnessing impacts of extreme weather such as flooding and drought which have far reaching repercussions. The world population is growing and the living standards are also evolving. Fresh water, food and energy are linked so the choices made over these finite resources will have a last impact on security implications. The World Bank estimates that were 2050 approximately 1 43 million people in sub-Sahara Africa, South Asia and Latin America could be forced to move due to climate change impacts. The most vulnerable countries are the ones with least resources and infrastructure to adapt to the impact of climate change. Currently developing countries are already struggling with poverty and inequality and conflict.

Climate change is causing vulnerabilities and contributing to political instability and social and rest and many parts of the world. The impact of climate change has significant geopolitical and security implications as stated earlier climate change the threat multiplier which can exacerbate existing tensions and contribute to conflicts. For example, the civil war in Syria was partly drawn by severe drought which then led to the replacement of millions of people. Climate change also has significant impact on global security.

Global health:

For a very long-time global health wasn't recognized as a security issue. Diseases and pandemics affect societies and governments a major example would be that of **1918 Spanish flu pandemic** which killed 20-50 million people including soldiers around the world. Because pandemics and diseases are able to cross borders that's when they start to threaten national stability and attract political attention that is when it becomes a matter of national and global security. After world war II, the militaries in some countries started researching diseases and vaccines as part of their national defense strategies such as US Department of Defense and China's People's Liberation Army. Two major pandemics made governments realize that global health has potential security threats and ever since they have stated that pandemics such as HIV\AIDS, Ebola virus and COVID-19 etc could threaten both domestic and international security.

To what extent do existing international security institutions adequately address the security threats posed by climate change?

International institutions such as NATO are also working tirelessly to address the security threats posed by climate change. Russia Ukraine war has reinvigorated NATO and highlighted its importance. NATO Deputy Assistant Secretary General for Emerging Security Challenges, Jamie Shea (2011) stated that even an event as catastrophic as Putin's invasion of Ukraine can't

undo or absolve NATO of its responsibility to keep its focus on the effects of climate change. As we all know that the war is due to fossil fuels as well and dependency is a weakness of the military. Moving away from fossil fuels is important even for the environment. NATO has made efforts to combat reliance on fossil fuels and made climate related decisions at Madrid Summit in June 2022.

In 2010 NATO recognized that there is a link between climate change and security. It states that the military is dependent upon fossil fuels which is bad for the environment and has negative effects on climate change and the urge to improve the energy efficiency of military forces. At NATO's Brussels summit in June 2021 the NATO 2030 agenda and the climate change in security action plan were adopted. The members pledged to reduce greenhouse gas emissions from military activities and installations and reaching Nazi emissions by 2050 (NATO 2021). In order to help the members, NATO develop a mapping methodology which helped them measure the military emissions. In 20201 Glasgow NATO secretary general Jens Stoltenberg stated that there was no way to reach at zero without including emissions from the military and he also said that NATO can remain a fossil fuel alliance in the world of renewables (NATO 2022).

NATO emerging security challenges division started to work on energy efficiency under the banner of smart energy. At the Chicago Summit in May 2012 members agreed a position on smart energy and stated that they will work significantly to improve the energy efficiency of military forces (NATO 2012). NATO is also supporting and promoting projects that aim to reduce fossil fuel dependence in military camps to promote renewable energy uses and to also incorporate in a technology within military capability. Following this a smart energy team (SENT) established in 2013 with a goal to identify and spot opportunities to collaborate with multinational smart energy projects and they were given deliverables which were achieved. A report was found in 2015 which stated that many nations had successfully implemented smarter energy technologies and then also established strategies and policies for smart energy use in the military.
The report also acknowledges that there was a lack of corporation between the industry, academia and defence among NATO nations as well as internally. NATO science for peace and security program also launched 'Camp Energy Efficiency' project in Canada in 2018 for the develop monitoring kit to collect energy related data to identify an address wasteful energy consumption in deployed military camps (NATO 2017,2018). The other projects launched such as smart energy camps included solar panels, energy saving LED lights, hybrid energy system grits, in solution for tense, intelligent power storage & management capabilities and water purification systems (Michaelis 2017).

NATO's Green Defence Framework adopted in February 2014 was also an important step forward as it provided basis for green solutions for defence (NATO 2014, 2015). It suggested to reduce energy consumption of allied armed forces and to apply green standards across NATO

political and military structures and facilities. So, energy efficiency has become an important part of NATO policy and strategy especially within the context of military operations. There are two "umbrella documents" that provide further details and developments of NATO standardization in the area of smart energy namely the 'Policy on Power Generation for Deployed Forces Infrastructure' and 'NATO Military Principles and Policies for Environmental Protection', (NATO 2015).

UNSC: (United Nations Security Council)

Climate change was first discussed at UNSC in April 2007. This was the first time the Security Council part of UN treated climate change seriously which has a potential of affecting global peace and security. At that time the progress on climate change was quite slow so it was mandatory to bring the topic in Council attention. It was also the first-time climate change was combined with national and human security issues while linking climate change with energy.

The Security Council is a powerful body which has 15 member countries and 5 permanent members so all decisions are legally binding for the UN countries. By placing climate change under Council's agenda meant that it was treated as seriously as other global threats such as terrorism and war etc. Some countries supported this initiative while others felt like it dint belong under the Council's mandate whose purpose is armed conflict and peacekeeping. Ever since then, Climate change has appeared on the Council's agenda several times. The discussion has taken place in formal as well as informal meetings and its only recently that UNSC resolutions have started mentioning climate change in areas where conflict and environmental stress overlap.

Countries that prefer joining the Council as non-permanent members have used climate change as a campaign issue making sure the Council takes climate crisis more seriously. Although the 2007 UNSC meeting on climate change dint led to any official decision but it was important as it helped raise awareness within UN about how serious climate change is and also encourage Security Council to play a role in it. In 2009 a group of small islands developing states that are vulnerable to rising sea levels with the issue to UN general assembly. This led to the adaptation of resolution 63/281 which encouraged different parts of the UN to pay more attention to climate change specially how it might affect global peace and security. The resolution also asked the UN secretary general to prepare a report on the link between climate change and security risks. This report was published in September 2009 introduced the idea of climate change as a threat multiplier. This means climate change can make existing problems like poverty, political instability or lack of resources worse increasing the chances of conflict and insecurity.

US representative argued the climate change has real implications for peace and security however China India and Russia considered climate change as a sustainable development issue and nearly blocked the discussion. However, after that the council recognize the possible adverse effects of climate change which means the longer aggravate certain existing threat to

international peace and security and requested Secretary General to take into consideration the security implications of climate change. The discussion continued in informal meetings which was dedicated to the security implications of climate change and they kept the discussion alive focusing on different aspects from 'climate change as a threat multiplier' to the importance of 'preparing for security implications of rising temperatures.'

Later in 2018 an open debate was held which focused on climate change and this was hosted by Sweden. Once again it faced a setback in climate governance with the withdrawal of US from Paris agreement. Ever since then multiple meetings have an organized frequently which are entirely dedicated to climate change.

The UNSC has started to officially recognize climate change as a security issue in some of its decisions. For example, it has mentioned climate-related risks in resolutions about specific conflicts like the Lake Chad Basin (March 2017) and Mali (June 2018) and Somalia (March 2018). These resolutions state that climate change can make conflicts worse especially in countries in Global South. They also call for action, plans to assess and mitigate risks caused by climate impacts such as heatwaves, droughts, water shortages which then lead to violence and instability. To support this, UN created **UN Climate Security Mechanism** a new body whose job is to gather information about how climate change affects security and reports back to UNSC and other UN agencies for better decisions.

This reflects the idea that "climate security" is slowing become more accepted and made its way in the UN. Not everyone agrees that climate change should be seen as a threat to peace and security but the UN has started to include it in discussions and decisions about specific conflict areas. Overtime, the language used in the UN has also changed and today, instead of focusing only on climate change as a threat or emergency, there's more focus on "climate risks" and climate change as "crisis multiplier." Climate change can aggravate situations of poverty, conflict and lack of resources without being the direct cause of crisis. This shift reflects a move toward managing risks before they become crises.

In 2021, a major effort was done to pass resolution to formally recognize climate change as a threat to international peace and security however the resolution was supported by most members but was vetoed by Russia and opposed by India as well. The critics argued that climate issues should be the responsibility of environmental bodies not Security Council.

UNEP: (United Nations Environment Programme)

The UNEP has a very crucial role in addressing links between climate change and international security. Although, it doesn't have any direct peacekeeping mandate like that of UNSC but it does focus on research, policy guidance and capacity building. It helps governments and regions understand and manage environmental risks that can lead to conflict.

UNEP has stated that climate change is a threat multiplier which exacerbates existing problems

like poverty, food security, water scarcity and political instability worse. This leads to conflict especially in fragile regions as discussed earlier. UNEP is also among the first UN agencies to state that environmental stress acts as a catalyst for violence and displacement. UNEP has published reports and tools that help identify climate-related security risks which include: "From Conflict to Peacebuilding: The Role of Natural Resources and the Environment" (2009), this report highlights how environmental issues can worsen conflicts. Though they don't state that environmental factors are the sole cause but the exploitation of natural resources are another reason. It further states that environment can fall victim to conflict coupled with the collapse of institutions that can threaten and endanger health, livelihoods and security.

UNEP supports UN system in analyzing and responding to climate-related security risks. It helps develop tools and methodologies for field missions and peacebuilding operations, it also works towards informing UNSC of climate-security data and presents briefings. UNEP works with national governments and communities in states that have recently come out of conflict or those that are fragile in order to restore their ecosystems, to improve resource management i.e water, land etc. it also helps those nations to build resilience to extreme climate shocks such as floods, droughts etc. it helps prevent competition over scarce resources which might lead towards a full-blown violence.
Examples:

1) Post-conflict Sudan and South Sudan (over natural resource use)
2) Afghanistan (Over water and land degradation)
3) Iraq and Syria (Environmental damage from war and climate impacts)

European Green Deal:
EU countries are legally committed to fighting climate change by becoming a climate-neutral economy with net zero Greenhouse gas emissions by 2050. The EU leaders met within European Council in Dec 2019 where they all agreed on this goal and later European Commission launched **European Green Deal.** This stems from the commitment to **Paris Agreement** which all EU member states have signed and ratified. This is important to tackle climate crisis and brings significant opportunities for:

1) Economic growth
2) Markets and jobs
3) Technological development

The Green Deal supports the transformation of the EU into a fair and prosperous society with a competitive and fair economy it also highlights all policy areas which are necessary to combat climate change. Under this Green Deal, the Council alongside European Parliament have adopted legislation which has brought this vision to life by implementing into laws and rules which are applied all over EU member states.
EU is becoming greener by the day through 8 different steps. Firstly, they have made sure

homes are powered with cleaner energy, they have reduced the carbon impact of energy sector, industries, transport. Today, this sector accounts for 75% of all EU emissions. Under the new rules by 2030, Europeans will get 42.5% of all energy from renewable sources such as solar and wind power to geothermal energy and hydroelectric. This is cheap and easy to generate. There is infinite renewable energy available so no member states will fight each other and threaten international security. Furthermore, new legislation will for the very first-time address methane emissions, enforcing strict limits and making monitoring and reporting mandatory.

Secondly, via cars. Vehicles are biggest source of transport emissions in EU accounting for 71% of the total. For years to come vehicles will be powered by fossil fuels such as diesel, gas and petrol but today they have paved way for cleaner cars and vans that drive on battery. By 2030, the emissions from new cars and vans will drop to half. And five years later, new cars and vans will be launched that will have zero-emission. These new rules will give manufacturers time to research and make better vehicles that will be powered by hydrogen and will need sites to refuel and recharge, there are plans to build more recharging and refueling points across EU by 2030.
Thirdly, buildings emit no carbon dioxide. Buildings today are responsible for over one third of the greenhouse gas emissions in EU. Today, the emissions are reduced from building. The reduced energy consumption or increased use of renewable energy which is very crucial. The new rules state more ambitious energy efficiency standards for both residential and non-residential buildings and under these rules **all buildings** will be **zero emission by 2030** and energy performance certificates will be mandatory for all these buildings. There will be new residential buildings constructed that will have solar energy installations. There will also be greater number of recharging points and stations for E bikes and electric cars. The legislation aims to encourage property owners across you to have sustainable development buildings with ultimate goal of ensuring that all of the buildings are zero emissions by 2050.

Fourth, construction materials today are greener than before as producing cement, steel, and glass requires large amounts of energy and are very costly too. So, the legislation provides financial incentives for the industries to reduce their emissions. The EU emission trading scheme for a price on carbon dioxide emissions through a trading system for carbon permits. The number of permits available each year will be reduced and this will eventually reduce emissions. The current EU ETS trading scheme covers approximately 10,000 large plants in the following sectors:

1) electricity and heat generation
2) energy intensive industry sectors
3) commercial aviation in European Economic Area.

Under these rules, Maritime sector will also be covered. There will be a separate carbon market that will target and cover companies that sell fossil fuels used in buildings, road transport, and small school industry. Due to high carbon pricing, there is a risk that certain energy intensive

industries will also increase their production outside of EU nations with less strict climate policies. In order to address this problem which is known as "carbon leakage" importers of certain products are subject to carbon border adjustment mechanism (CBAM) which they will have to compensate for a difference in the carbon price of 2026. Products that will be covered with his mechanisms include iron and steel, cement, fertilizers, aluminum and hydrogen and electricity.

Fifth, to produce clean energy is half problem the other half is preserving it and not wasting it. Infact, saving an energy in the most cost-effective solution is important for climate friendly energy sector. Home appliances are another area that are targeted by the energy efficiency legislation. There are many ways to save energy which include better insulation, rolling out smart meters for utilities, monitoring and certifying energy systems, technological advancements to reduce energy use and transport these new rules will now become compulsory for you. EU Countries are expected to reduce energy consumption by 38% by 2030 that is 5.5% more than what the Member states committed back in 2018 each member state will have to take measures to cut energy use. The sectors which are of utmost importance are buildings, industrial and transport.

Sixth, Aviation too relies on fossil fuels. Travelling by air has a high impact on the EU's overall emissions record. For example, a flight from Lisbon to New York generates roughly the same level of emissions as an average person in EU does by heating their home for a whole year. Under these rules, aviation sector will also increase the use of sustainable fuels. The suppliers of aircraft fuel would be required to increase the share of sustainable fuels such as synthetic fuels or advanced bio fuels that they distribute. Flights within EU will continue to be included in the EU emission trading system, which provide incentive for the alliance in order to reduce their emissions. And for the flights to the rest of the world, from EU (those airlines are required to offset emissions in accordance with the rules defined by international civil aviation organization.)

Seventh, just like aviation and Maritime sector uses fossil fuels, cargo and cruise ships also use fossil fuels. The ships coming to European ports and those that be more than 5000 gross tons whether they are cargo or cruise ships have to cut emissions by 2030 and beyond this new legislation will encourage use of more sustainable fuels in particular for larger ships which generate nearly 90% of all emissions from Maritime sector although some exceptions will apply for example of fishing vessels. There would be sure sided recharging facilities in order to mitigate air pollution and ports which are often close to densely populated areas.

Lastly, the top priority of the EU member states is to remove carbon dioxide from atmosphere and to contain and mitigate greenhouse gases. This will not only reduce overall carbon footprint but will also help them achieve their aim which is becoming climate neutral. The goal is to enhance carbon dioxide removal by placing "carbon sinks" which will compensate for the emissions that are hardest to eliminate. Sinks include natural and technological solutions of

course such as trees and other plant that act as natural 'sinks' their absorb carbon dioxide from atmosphere. The aims towards these natural sinks.

For EU to make this green transition it will require major transformation and investment. All the member states have decided to devote up to 30% of all you funding to climate related action which amounts to nearly €550 billion. Additional funds such as innovation font and modernization fund under EU ETS, as well as Social Climate Fund will also help mitigate climate crisis and shift to greener policies. This funding also helps support citizens and companies bearing the cost of transition. For example, the poor and vulnerable citizens who struggle with the energy bills will be eligible for financial assistance from the future social climate fund. According to war metrological organization over the past few years they have recorded the warmest temperatures. Heat waves, drought and devastating flood of also impacted lively cause of millions across the world. Humanity stands at a turning point so the question is what is it that we can do and is necessary to avoid the worst effects of climate change. Europe of all is ready to do it part!

Conclusion

While environmental multilateralism is challenged and complex in today's modern and age but the only way forward is cross-border and cross-cultural cooperation which can safeguard the survival of humanity. The impact of climate change on geopolitics and global security is serious. We need to take urgent action in order to reduce greenhouse gases and resilience to the impacts of climate change. This includes transitioning into renewable energy sources such as wind power solar power and phasing out of the use of fossil fuels. We need to improvement policies and regulations reduce greenhouse gas emissions from industries such as agriculture manufacturing and transportation. We need to put infrastructure is in systems that can adapt to the impact of climate change to sea walls, drought resistant crops and water management systems. We need to support developing countries to build resilience to the impacts of climate change and transition to low carbon development pathways. In conclusion the impact of climate change of the politics and global securities is complex an urgent issue that requires major action. Climate change is already causing significant impacts around the world and the most vulnerable countries are the one that are the most affected. To address this challenge, we need to work together as a global community to reduce greenhouse gas emissions and resilience to the impacts of climate change. If we take action now, we can create a more sustainable and secure world for future generations.

According to professional policymakers and scientists, we need to permanently decarbonize our economies, industry and energy systems by going green. We should put an externality price on residual carbon emissions. Public-Private partnership is mandatory. Projects should be launched that help prevent coastal erosion and those that shield vulnerable regions from intense floods or heatwaves. Although, climate change is happening at an unprecedented rate it will not affect all states in the same manner however, it poses a security and existential threat to everyone. While

some countries especially islands would disappear entirely, other nations will lose a large portion of their territory and cities. This will cause political instability, migration crises, inter-and-intra state warfare, increased military expenditure etc. climate change is a collective problem of all the nations. Any one nation can't be held responsible for climate change, rather all are culprits and victims to different degrees. The only way forward is international cooperation which has not been too successful but it is one step forward. Developing countries argue that developed nations are at an advantage since industrialization and they should be the ones to take responsibility of the costs of reducing emissions. The developing nations are not ready to slow down their economic growth for the sake of climate goals until and unless they are getting funds. Moreover, if countries begin to feel that climate action is a lost cause then they will pull out of the international negotiations and choose to protect their own communities. There are actual cases of international treaties where they've achieved a reduction in GHG emissions. For example: the Montreal Protocol on chlorofluorocarbons has reduced GHG emissions up to four or five times as much as the Kyoto Protocol tried but failed to achieve.

The key solutions for combating climate change and mitigating security threats can be that all nations transition to renewable energy. They should not rely on fossil fuels, be more energy efficient i.e they should implement energy efficient technologies and practices in industry, buildings and transportation. They should protect and restore forests, have penalties on deforestation. They should also have sustainable transportation systems i.e promoting public transport, cycling and electric vehicles. All nations should come together and minimize food waste and promote SDG's. like Japan has earthquake resilient infrastructures, nations around the world should also have infrastructure that can withstand extreme weather events, there should be warning systems that can protect and alert nations from natural disasters, governments should support communities by helping them to adapt to climate change through sustainable agriculture and other economic activities. Finances should be directed towards adaptation and mitigation efforts that contribute to peace and stability especially in fragile nations, there should be peacebuilding and conflict resolution efforts. Countries should be able to raise awareness and actively work towards solving climate change issues and security implications. Lastly, international cooperation is required otherwise without it humans are at a war with the very fabric that sustains life.

To conclude, climate change and international security are closely linked. This is a new era of war, if countries don't cooperate and take the right measures now, they will destroy not just the present but also the future of tomorrow for further generations to come.

Alice Hill, currently serves on the board of the environmental defence fund and Munich regroups US based companies. She is the author of the fight for climate after COVID-19 and co-author of building a resilient tomorrow how to prepare for the common climate disruption. An interview she was asked that as a social impact practitioner what are some policy recommendations to adapt to floods, fires, drought, heat and all of the above? To which answer

that decisions need to consider the future impact of climate change be drought, intense wildfires, rain bombs, extreme rainfall heat waves rising sea levels or other cascading events that occur as a result of those new extremes She says the real social impact will come from communicators. She said that we desperately need people who can communicate science in a way which is understandable for decision makers and policy makers because those are the ones running the government the businesses and local community so we need people who can take the science and tell others what it means so decision makers can really apply it and make better decisions on the face of worsening events. She says that we're fighting the last war. She said that if climate change and catastrophes are causing the harm for example in LA then it's natural for the people to rush forward and rebuild exactly as it was for example their homes and neighborhoods their communities but it's going to put people back in areas that are likely to burn. And so they shouldn't build in the same way they did in the past otherwise it would be large conflagration going forward. She said the solution is manager retreats that Bangladesh is already doing in advance. The designated places within the country to relocate the people. It faces a huge flood risk from both river and flooding and sea level rise so it designating other places within the country for the migrants who are forced to evacuated move out of their houses due to climate change crisis into new homes this with also providing the receiving cities with resources and necessary tools which could help the migrant as they arrive and this reduces friction between the between the cities and the people moving in.

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