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Climate Change, Migration and Security in Africa.

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Abstract
This paper reassesses the link between climate change, migration and security in Africa and analyse the role of climate change, adaptation and mitigation policy for future conflict prevention. Africa with its history of ethnic, resource and intra/interstate conflict is seen by many as particularly vulnerable to this new security threat, despite being the continent that is least responsible for global greenhouse gas emission. This relationship between climate change, migration and security is academically contested. Given the political urgency and potential scale of the issue, it is not possible to wait for academic consensus to emerge. However, Climate security is tied intellectually to environmental security, a field of thought that is now several decades old and that emphasize the many linkages between the natural environment and both global and national security. Its basic premise is that natural systems are interwoven with economic, social, and political systems. The relationship between youth unemployment, irregular migration and instability in the context of climate change is politically recognized as a likely risk with high impact, even though contemporary policies still focus primarily on responses to forced or irregular migration. This argument underlines the complex links that are hypothesised in explaining the link between climate change and security. Currently there is the aspect of migration and environment, when inadequately managed, could result in large-scale movements and can lead to overexploitation of natural resources, destruction of peoples' livelihoods in the host environment and may, in turn, provoke further migration and displacement, in addition to creating tension with the receiving communities. It is without doubt that climate insecurity can increase risk to life, property, and settlements, especially among marginalized populations, and therefore to increase the risk of conflict. "Human insecurity is the

necessary link between climate change and conflict". This paper concludes by advancing the need for policies aimed at promoting deliberate integration between these fields of Security, Stability and Sustainability by stimulating the creation of green jobs and investment opportunities by migrants themselves.

Key Word: Climate Change, migration, environmental migration, forced migration, security.

Introduction

Today, the negative impacts of climate change coupled with the growing population, poverty, the current number of conflicts, weak state structures, and low capacities to act in response to the situation have potentially high consequences on security in Africa region. The world's climate has been changing for many thousands of years. For instance, about seven thousand years ago, the Sahara was a landscape of lakes and forests. Pastoralism as a way of life became known as a response to its gradual desertification (Brooks, 2006). Nevertheless, it's now extensively recognized that the burning of fossil fuels and deforestation are changing our atmosphere with a speed and scope that is unprecedented in the historical record (Boko et al., 2007).

This has resulted in a number of serious climates related problems that require building-up appropriate response and resilience capacities in a conflict sensitive and preventive manner in Africa to avert consequent migration effects. Climate change is a heterogeneous phenomenon that produces different outcomes in different places; while global warming refers to the documented warming of the earth's surface based upon worldwide temperature records. The Intergovernmental Panel on Climate Change assesses climate change by measuring changing temperatures and precipitation. Given that trends in temperature often drive trends in precipitation, scientists consider temperature a more robust and stable measure of climate. Therefore, the reality we face today is that global warming has become a reality, and so has climate change.

The 2015 Paris Agreement stressed that climate change "represents an urgent and potentially irreversible threat to human societies and the planet". Similarly, the report of the

Intergovernmental Panel on Climate Change (IPCC), pointed out that Africa is the continent that will be most affected by climate change although it contributes the least to it. With large swaths of desert, widespread poverty, and limited adaptive capacity, many regions in the African continent and their communities are particularly vulnerable. It is envisaged that among other consequences, climate change will lead to increased natural disasters such as floods, mudslides and droughts. It will also negatively impact the quantity and quality of water supply, rivers, lakes and oceans notwithstanding. Due to exceptional reductions in rainfall in many parts of the region, the African continent has already been experiencing deforestation and desertification. In a report prepared by the Food and Agriculture Organization of the United Nations (FAO),aver that the impact of climate change could lead to as much as a 50 per cent fall of crop yields by 2020 in some of the poorest African regions. Moreover, the overall impact on agricultural production, food security, shelter, people's livelihoods and economic development is expected to be particularly devastating in most hard-hit regions of the continent.

The security implications of climate change are of increasing significance to international peace and security. According to Osawe, Akhimien & Aigbokhaebho (2015) many African countries have their economies largely based on weather- sensitive agricultural production system like Nigeria relies on rain fed agriculture remains particularly vulnerable to climate change. The Africa continent as currently constituted, where adaptation mechanisms are weak or uncoordinated, are especially vulnerable to insecurity related to water, food, energy, and natural disasters. This will be a major challenge not only for African countries but also international partners involved in climate change mitigation and adaptation efforts.

Security in the context of climate change is a complex that revolves round individual family and often misunderstood concept because insecurity can be found at many different societal levels. Here, we differentiate between security at the level of the individual and security at the level of states. This work concerned level of individual, where security encompasses a wide range of

spheres (notably food, water, and energy) of which physical security is only one element. The concept of "human security" encompasses these various components of an individual's wellbeing, and this need not be so readily equated to conflict even if it poses a developmental challenge in itself (ACCES, 2010). The ACCES went further to explain that "climate change acts as a "threat multiplier" by exacerbating existing vulnerabilities, and must be analysed in relation to the adaptive capacity of those affected (individuals, communities and states), taking account of the wider political, socio-economic and demographic context. Looking at the diversity of geography and climate predictions between and within Africa states, the task will be more challenging because each element will be conditioned by the capacity of a state to cope with the security implication arising from climate change. This paper delved into interconnectedness of climate change, migration and security in Africa.

2. Climate Change and Migration

All through history, migration has been used as a coping strategy in the face of environmental change. Conversely, it cannot be assumed that climate change alone will lead to migration or displacement. The term "migration" generally conveys a voluntary decision to leave, while "displacement" generally conveys a situation of forced and unplanned movement. The term "forced migration" is also commonly used to describe forced movement, including displacement, but also forced movements planned and carried out to protect the individuals or in the context of development-related programmes (relocation, resettlement). Climate change plays a tortuous role in such movements, by worsening existing vulnerabilities. One fact is significant, which is the existence of Low "adaptive capacity" and is an essential element of vulnerability to climate change, whether it is at the level of the individual, the family, the community/region, or the state. According to ACCES (2009) adaptive capacity depends on factors such as demographic pressure, poverty, level of development (e.g. state provision of social safety net, basic services), weak or inequitable governance (land tenure being a key aspect), each of which can be important

"drivers" of migration or displacement. At the level of the individual, and in addition to the above, other factors such as information/education, social networks, and physical condition can also influence the potential for environmental migration.

The number of people who migrate or are displaced by the effects of climate change will also depend on national and international policies for adaptation. It is important to understand that migration is a multi-causal phenomenon. For example, "pull" factors also have to be taken into account; such as the lure of higher income through wage-based employment in cities. Migration as it is not a vulnerability per se.

It can be both a negative and a positive response to vulnerability linked to climate change, depending inter alia on the extent to which it is planned, voluntary or forced (IOM, 2009).

Notwithstanding the lack of exact information on causalities that correlate between climate change and migration, its potential impact and population growth expectations in countries of origin makes the topic politically too important to ignore. Estimates of the number of people that are expected to be displaced because of climate change vary widely as a result of methodological constraints and the selection of variables used (such as: sea level rise, desertification, population growth etc.). Over 200 million people live in vulnerable coastal regions, and between 0.7 billion and 4.4 billion people will suffer from water shortages according to projections (GUK, 2009). A Non-Governmental Organization (NGO) "Christian Aid" has projected that by 2050 about 1 billion people could be displaced because of climate change (Christian Aid, 2007).

Norman Myers (1995) calculated the most frequently cited figure of around 200 million climate migrants by 2050. However, as Myers himself admitted, he made extensive use of extrapolation and the research was done over twenty years ago. It is also unclear what proportion of these climate migrants would try to reach Europe.

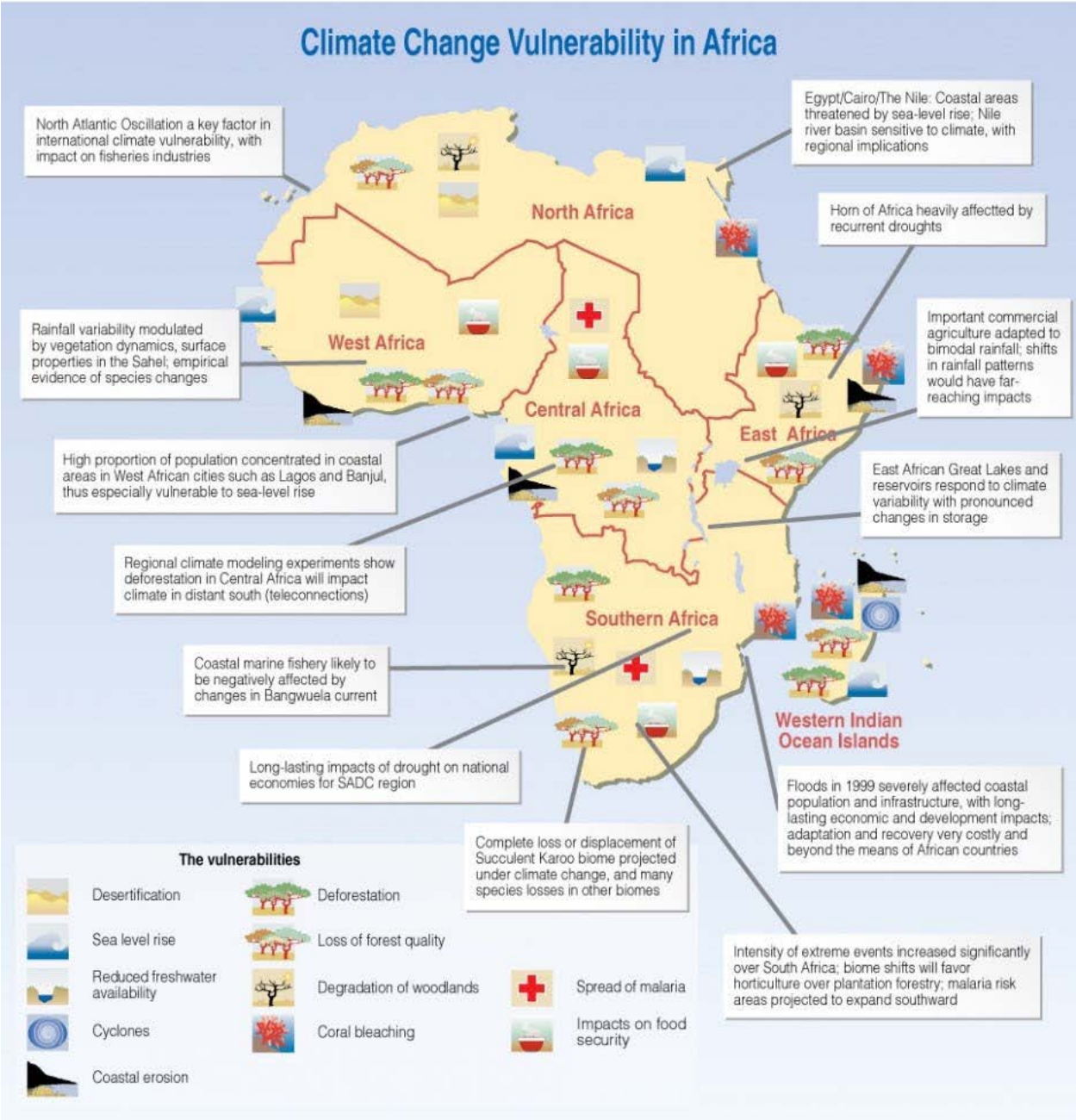

Figure 1: Climate Change Vulnerability in Africa. Source: UNEP GRIDA.

3. Migration

Migration is well thought-out as one of the defining global issues of the early 21st century, as more people are on the move today than at any other point in human history. UN estimates show

that in 2010, 214 million people were going to live outside their countries of birth or citizenship and another sister agency the International Labour Organization (ILO) observed that nearly half this number, about 95 million based on their calculations are economically active as migrant workers. Together with their families, they make up the large majority of all international migrants. While migration has reached higher levels today than ever, there is no typical profile of migrants around the world. Agricultural labourers, fruit pickers, nurses, political refugees, construction workers, academics and computer programmers are all part of the nearly one billion people on the move both within their own countries and overseas (UNDP, 2009). Yet most movement in the world does not take place between developing and developed countries; it does not even take place between countries. The overwhelming majority of people who move do so inside their own country, often from rural to urban areas or to slums. Approximately 740 million people are internal migrants, almost four times as many as those who move internationally (Schreier, 2010).

Among those who have moved across national borders, just over a third moved from a developing to a developed country – fewer than 70 millions. Most of the world's over 200 million international migrants moved from one developing country to another or between developed countries (UNDP, 2009). Most countries experience migration either as origin, destination and/or transit countries. Many countries are all three of these. Although, for many, migration is a positive experience, many others migrate under duress and face severe hardships. Migrant workers all over the world suffer abuse, discrimination and exploitation by traffickers, smugglers, and employers. People displaced by insecurity and conflict face special challenges. There are an estimated 14 million refugees living outside their country of citizenship, representing about 7 percent of the world's migrants. Most remain near the country they fled, typically living in camps until conditions at home allow their return. But around half a million per year travel to developed countries and seek asylum there. A much larger number have been

internally displaced. They have crossed no frontiers, but may face special difficulties away from home in a country driven by conflict, suffering from climate change or racked by natural disasters. Another vulnerable group consists of people – mainly young women and children – who have been trafficked. Often duped with promises of a better life, their movement is not one of free will but of duress, sometimes accompanied by violence and sexual abuse (Friesendorf, 2009).

ACCES (2010) observed that the number of people who migrate or displaced by the effects of climate change could as well depend on national and international policies (and funding) for adaptation. It is important to understand that migration is a multi-causal phenomenon wherein "pull" factors have to be taken into consideration (for instance, the enticement of higher income through wage-related employment in urban areas). Even at that, it is important to recognize that migration is a coping strategy, that is not open to all; and as such, those most vulnerable to environmental and climatic factors may actually be those who are unable to use migration as an adaptation strategy. The high cost of migration and the need of education/information/networks concerning the possibilities for international migration explains why most analysts predict that the majority of environmental migration will be internal or to bordering countries.

It is equally appropriate to drew attention to push–pull models of that assume that population growth and environmental degradation directly cause migration and to state that it is also important to recognize the interaction between these and the many other factors that influence decisions to migrate or to stay put. Flowing from the above, this paper also emphasizes the need for a multi-pronged understanding of migration that takes account of the many aspects of change that affect societies and communities, as well as the role of individual and collective agency in shaping migratory behaviour.

The work of Migration scholars, Castles, De Haas & Miller (5th Edition), drew attention to pre 1945 and post 1945 on the relationship between climate change and migration. This can be seen as a

special case of environmental drivers of migration, but as one of growing current significance. Concerns about climate change-induced migration have emerged in the context of debates on global warming and the inability of states to take effective action to mitigate it through regulation of carbon emissions.

Environmentalists have claimed that the effects of global warming, especially on sea-levels and rainfall patterns, will lead directly to massive population displacements. They call for action to prevent such migrations as well for the broadening of the definition of refugees to include people displaced by climate change. The underlying assumption seems to be that migration is intrinsically negative and should be stopped where possible.

Migration scholars, by contrast, have pointed out that migration is driven by many interacting factors, and can rarely be reduced to the effects of just one form of change, such as climate change. Moreover, they have argued that migration itself can be one of the most effective ways of responding to change and building better livelihoods.

4. Environmental migration: This might look a complex typology that refers to "Environmental migrants persons or groups of persons who, predominantly for reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their homes or choose to do so, either temporarily or permanently, and who move either within their country or abroad" (IOM, 2009). Natural hazards can just happen unannounced for instance, storms, earthquakes and seaquakes; they can also be slow-onset in nature, such as droughts that can last for longer periods of time. Natural hazards turn into natural disasters when they wreak havoc on human settlements, taking lives, destroying livelihoods, including homes and infrastructure, and forcing people to flee for sheer survival. However, these sudden, large-scale displacements of population are often temporary and localized, with cross border movement occurring if there are no other escape routes. In most cases, return might be possible, especially if adequate support is offered.

ACCES (2009) averred that gradual environmental change includes processes such as desertification, reduction of soil fertility, coastal erosion, and sea-level rise. Environmental degradation occurs when these processes negatively affect human livelihoods and the ecosystem services that a community depends on. Climate change exacerbates these processes, which have a medium- to long-term impact on existing livelihood patterns and systems of production. They may trigger different types of migration: in the early and intermediate stages of environmental degradation, migration can represent a logical and legitimate livelihood diversification option. It is an adaptation strategy for affected populations to help them cope with the effects of environmental degradation and climate change. Desertification is already consuming fertile land in Africa, causing people to leave their homes to find work elsewhere, including Europe. Some countries are predicted to disappear entirely into rising seas. In this context, migration is likely to be temporary, circular, or seasonal in nature where only one family member will be involved.

(NELM, no date) The new economics of labour migration (NELM) argues that migration may set in motion a development dynamic, lessening production and investment constraints faced by households in imperfect market environments and creating income growth linkages. There is empirical evidence that remittances may be a positive factor in economic development.

Remittances and skills (“social remittances”) transferred back to families and communities of origin may contribute to building resilience in degraded areas; however, when environmental degradation becomes harsh or irremediable, for instance, due to sea-level rise, migration can become permanent and may require relocation of affected populations, either internally or in another country. Several studies in Western Africa have found that persistent droughts and land degradation contributed to both seasonal and permanent migration (Warnecke, Tänzler, & Vollmer, 2010).

Overall, a much larger number of people are expected to migrate due to gradual deterioration of environmental conditions rather than natural disasters, even if, in most cases, their fate does not

catch headlines. In many parts of the world, environmental degradation and natural disasters combined can have devastating effects, as in Eastern Africa where heavy rain that often follows drought season can lead to flash floods. Populations exposed to such cumulative vulnerabilities are particularly at risk. Migration, especially the mass influx of migrants, can affect the environment in places of destination and origin, and along routes of transit. In particular, unrestrained urbanization, as well as camps and temporary shelters, may put a strain on the environment if improperly managed.

This two-way connection between migration and the environment can result in a vicious circle. If inadequately managed, large-scale movements can lead to overexploitation of natural resources and further destruction of peoples' livelihoods in the host environment. This may, in turn, provoke further migration and displacement, in addition to creating tension with the receiving communities. Conversely, out-migration in places of origin may ease population and land-use pressure, which can allow a degraded local ecosystem to recuperate. This multifaceted interaction between human beings and their environment makes it practically difficult to predict the scale of future movements.

5. Change and Forced Migration

International Organization for Migration (IOM) defined forced migration as a "migratory movement in which an element of coercion exists, including threats to life and livelihood, whether arising from natural or man-made causes". Environmental factors have long played a significant role in fostering forced migration, a trend that has been further exacerbated and accelerated by recent effects of climate change. The United Nations Convention to Combat Desertification (UNCCD) 2014 that reported on desertification noted that "climate change and its effect of desertification are increasingly displacing people and forcing them to migrate". Similarly, Africa Week, (2017) observed that in the Sahel, desertification and deforestation have critically put at risk 67 million people living in the region. It must be stated here that the effects

of climate change combined other factors to push people to leave their homes. In African regions, be it local, national and or regional capacity is weak and communities are already under stress due to poverty, high unemployment or food insecurity. In the midst of these, climate change constitutes a compounding driver for forced migration, which made adaptation and mitigation the most difficult to achieve in most African countries coupled with their limited financial, institutional and human resources. This is why, preventive actions towards climate change mitigation are critical. On the whole, forced migration, is similar to conflict, that can exacerbate the effects of climate change on the affected communities. This situation occur when large swarm of migrants engage in the overuse, degradation of the soil, increase pollution, impact the access and quality of water resources and hasten deforestation. This is particularly the case when forced migration trends are not temporary and long-term resettlement solutions do not seem feasible (Africa Week, 2017).

6. **Climate Change Migration–Security Nexus**

The underlying relationship between security and migration is evidently established when we consider the millions in refugees and IDP camps as a result of war and conflicts; but when the sequence is reversed, the link between migration and security is ambiguous (Warnecke, Tänzler, & Vollmer, 2010). But scholars like Salehyan. & Skrede Gleditsch (2006), in their "Refugee flows and the spread of Civil War," recorded statistically significant evidence for a link between climate change migration and security while Weidmann, Kuhn, & Nikolic, (2007) found no relationship. However, the linkages between climate change migration and security in Africa require a careful investigation that explores the impact of climate change adaptation policies as deterrence to future conflict. Africa has long history of ethnic, resource and interstate conflict, and this kind of background provided a basis for vulnerability to this emerging security threat and it is a common knowledge that Africa as a continent ranked the least to be blamed for global greenhouse emission. A cursory look at climatic changes in Africa, it presents a future that will

experience increasingly scarce water, depleting agricultural production, and desertification, and damaged coastal infrastructures. The collective impact of these will constitute a serious challenge that will weaken the "carrying capacity" of large part of the continent causing destabilizing population movements and raising tensions over dwindling strategic resources. In such cases, climate change could be a factor that tips fragile states into socio-economic and political collapse. Climate change is only one of the many securities, environmental and developmental challenges facing Africa. Its impact will be magnified or moderated by underlying conditions of governance, poverty and resource management, as well as the nature of climate change impacts at local and regional and the corresponding policies and programmes.

There is general consensus that some of the most severe effects of climate change will be felt in Africa, ranging from increasingly frequent extreme weather events, to desertification. An estimated 10 million people in Africa have already migrated or been displaced over the past two decades, mainly because of slow-onset phenomena such as environmental degradation and desertification (IOM, 2009). Brown & Crawford, (2008) observed that While many parts of Africa are particularly vulnerable in virtue of already fragile geo-meteorological characteristics, the effects are expected to be all the more devastating due to the existing vulnerability of some States (inter alia: reliance on rain-fed agriculture; demographic pressure; recent history of conflict and a generalized lack of adaptive capacity. The Centre for Social and Economic Research on the Global Environment, (1995) noted that the level of vulnerability of African societies to climate change depends in large part on their economic, political, and institutional capabilities. These can lower economic productivity, both state repressive capacity and public grievances by reducing the state's revenues, weakening its distribution capacity, and, consequently, lowering state legitimacy" Buhaug et al. (2008). This argument underlines the complex links that are hypothesised in explaining the link between climate change and security. According to Osawe and Ojeifo (2018) many African countries which have their economies largely

dependent on weather-sensitive agricultural production system like Nigeria that rely on rain fed agriculture are particularly vulnerable to climate change. Climate change has three major effects; Resource scarcity cited as a consequence of climate change when expressed in per capita may stem from two effects, acting in combination or alone: a decrease in volume of a resources due, for example, to low levels of precipitation; and/or higher demand driven by demographic grow (and /or higher per capita consumption). Secondly, Natural disasters are either geologically or climate-related. Concerning climate-related natural disasters, two have the greatest impact on the situation of populations. Thirdly, Rising sea levels have impacted crisis-triggering processes in the coastal areas over the past 40 years in different parts of the continent. Countries in the coastal region are concerned by the phenomenon including creeping erosion (Trémolière, 2010).

Migration in the region can also increase tensions in countries that are still relatively stable. In Libya, which is still in the early stages of reconstruction and coping with an influx of migrants from Sub-Saharan Africa, human trafficking networks and the political economy that has arisen undermine state authority and further destabilize the country. The question is whether viewing the current migration crisis through a security lens is likely to promote the most effective responses. As Elizabeth Ferris (2011) has suggested, it is more accurately considered a humanitarian crisis, comprising migrants in need of assistance and refugees in need of protection. The threat to human security is still far more real than any threat to national security.

At Global Forum on Migration and Development in Dhaka, 19th January, 2018 Michele Cavinato, head of UNHCR's Asylum and Migration Unit, called climate change "the defining challenge of our times". According to A.N.M. Muniruzzaman, a retired major-general who now heads the Bangladesh Institute for Peace and Security Studies; observed that "The international system is in a state of denial," "If we want an orderly management of the coming crisis, we need to sit down now – we should have sat down yesterday – to talk about how the management will take place". Groups like the UN's refugee agency, UNHCR, and the

International Organization for Migration, are well aware of the risks, and say they are working to bring climate change to the forefront of policy discussions.

Between 2008 and 2015, about 203 million people around the world were displaced by natural disasters and the risk has doubled since the 1970s, according to the Norwegian Refugee Council's 2016 Global Report on Internal Displacement. Most of the displacement takes place within countries, but those driven across borders are not considered refugees, because the 1951 Refugee Convention recognises only people fleeing war or persecution. This has created a 'legal gap' that needs to be removed to assist and protect people who cross borders in the context of disasters and climate change.

The risks of getting it wrong in Somalia are well known. When an extreme drought struck the Horn of Africa region in 2011, Somali was worst hit. Between 2010 and 2012, the country suffered a famine and nearly 260,000 Somalis died half of them children under five. An earlier 1994 famine in Somalia claimed an estimated 220,000 lives. Since the end of the 2011 drought, the UN has spent an estimated $4.5 billion on emergency relief efforts to avert another famine in Somalia. In January this year, the UN appealed for another $1.6 billion for drought relief efforts in 2018.

7. Climate Security

The Center for Climate Security defined "Climate security" as the threat posed by climate change to global and national security. Like environmental security, climate security is a decades-old concept, embedded in the notion that climate change is linked to global and national security concerns, in both direct and indirect ways. Here, climate change is regarded as an environmental stressor that degrades social, economic, political, and physical systems.3

In the work of Engelke & Chui (2016) climate security is tied intellectually to environmental security, a field of thought that is now several decades old and that emphasize the many linkages between the natural environment and both global and national security. They observed that the

basic premise is that natural systems are interwoven with economic, social, and political systems. That's why; Parthemore (2010) stated that when natural systems change, the consequences reverberate within human systems. Under some conditions, environmental change might create insecurity, up to and including challenges such as state fragility, forced migrations, rising extremism, civil conflict, and even the most traditional of security worries, interstate warfare. This field emphasizes how environmental stressors—such as severe drought or collapsing ecosystems—create or enhance insecurity within a country or region. Kelley, Mohtadi, Cane, & Seager, (2015 provided a classic hypothesis, one that has been advanced to partially explain the onset of the current Syrian conflict, is how drought-induced migration can contribute to social breakdown and even civil war. Its effects will have consequences for friendly and hostile countries alike, risking their domestic stability and external relations. Engelke & Chui (2016) see this threat as existential for some countries; in this century, for instance, it has been observed that rising sea levels driven by climate change could potentially wipe low-lying island states off the map. Driven by national security considerations, a group of these countries (the Alliance of Small Island States, or AOSIS) has been pushing for a strong United Nations (UN) climate agreement (See http://aosis.org.). For other states, the national security threat might be real and dangerous, but not (in all probability) an existential one. The United States is in this position: while the North American landmass will not disappear, the US homeland nonetheless will suffer from the increasingly severe effects of climate change. US natural resources (e.g., soil, forests, and freshwater systems), infrastructure, cities, and citizens will all bear the brunt of these changes.

The climate security framework supports both adaptation and mitigation strategies and the United Nations Environment Programme, (http://www.unep.org/climatechange) defined adaptation as attempts to reduce societal vulnerabilities to climate change and build resilience to

the same, while mitigation refers to the reduction of greenhouse-gas emissions in an effort to prevent changes to the Earth's existing climate.

Therefore, the development community focuses more on the human security impacts of climate change. The US Agency for International Development (USAID, 2012) views climate change as a stressor that will worsen existing development challenges. We can round up this portion with the statement by Stark, Mataya, & Lubovich (2009) that Climate insecurity is believed to increase risk to life, property, and settlements, especially among marginalized populations, and therefore to increase the risk of conflict. "Human insecurity is the necessary link between climate change and conflict."

8. Current Trend in climate change

In recent development, Climate change is causing increased competition between pastoralists and sedentary farmers, across the continent resulting in elevated possible localized conflicts. As people are confronted with imminent risks of crop failure as a result of increased drought frequency, desertification, and land degradation, a widespread response by farmers across the continent is the diversification of income source to reduce reliance on a single activity. As response, sedentary crop farmers are diversifying into livestock development activities, which have resulted in an increasing competition for grazing lands with pastoralists and destabilizing the traditional balance based on exchanges between the two groups. The reduction of exchanges between pastoralists and sedentary farmers has weakened traditional mediation mechanisms at the local level. Throughout Africa, straying cattle are the main source of violent conflict between farmers and herders.

9. Academic evidence on climate migration

Argument has been advanced that climate change is already causing people to migrate, though migration is not generally tagged a security risk, absolutely there is a link with the pressures in society, the rise of populism and terrorism are often made; though the proof is still very weak.

According to Burrows and Kinney (2016) "There has been considerable evidence linking climate change to migration, but the effects appear mainly indirect and context-dependent.

There is little consensus regarding which climate (policy) impacts (e.g. drought, floods, food and water scarcity) contribute most, whether climate change is a significant reason for people to migrate outside their own region and how many additional migrants would relocate to Europe because of climate change or the migration is locally driven. On the other hand, in its fifth assessment report, the Intergovernmental Panel on Climate Change (IPCC) pointed out that both direct effects of climate change, notably sea level rise or natural disasters, and indirect effects related to changing livelihoods can lead to migration. Moreover, irregular migration is mentioned as one of the risks climate change poses to human security.

Similarly, Homer-Dixon (1999) provided some conceptual insights on the environment–conflict linkage; Pai 2008; Gautam 2012). Apocalyptic pronouncements, such as "the precious water reserves of the Himalaya might well form the prelude to a new era of hostility" or the potential of "water wars," are found common in such scholarship (Holslag 2011). The key point here is that the water scarcity triggered by climate change in the Himalaya will be a contributing factor to an armed conflict between Asia's two juggernauts—that is, India and China (Pai 2008; Holslag 2011; O'Lear 2013). The Himalayan Rivers, flowing over their respective militarized disputed borders, are not only assumed to be depleting due to steadily shrinking upstream glaciers but are also dismally declared to instigate the border military conflicts[1] between them. Characterized by the argument that environmental problems are so important that they should be viewed as threats

to national securities, such security policy analysis has in fact endorsed bolstering of the militaries in Himalaya (Pai 2008; Gautam 2010).

In this discourse, by focusing on the potential for environmental problems to create conflict, the attention is diverted more toward the symptoms than the causes of climate change in the Himalaya. Not denying the potential for environmental problems that exists in Himalaya, but environmental security discourse moves us away from dealing with the source of these problems themselves. Importantly, with such a conceptualization of the environment, Himalaya turns out to be seen as a geopolitical source of environmental insecurity rather than its victims. Not surprising, such politically charged research, as also pointed by a few scholars, tends to ignore discussing any of the human ingenuity or adaptation of institutions to address environmental scarcity in breaking the causal relationship between the environmental change and the violent conflicts.

One of the ways the environment-conflict thesis becomes legitimized is by conceptually seeing the environment as an external entity, thus allowing a possibility to link it directly to a national or global conception of ecopolitics (Dalby 1998). This idea of nature, with a need to be dominated and controlled, according to Dalby, is a crucial ontological move, coupled with "positivist epistemologies and the contemporary policy discourses based on the 'technocratic' pursuit of knowledge and control" carry a powerful ideological power (Sabharwal, 2015). The science of climate change discourse that also separates humanity from the environment thus sits well and in recent times has speculated incalculable damages to ecology and economy through environmental deterioration (Lemke et al. 2007).

As it might be seen, that the mainstream humanitarian aid scene is not yet ready for climate change (Brown, O., et al. 2007) and the migration debate is still too preoccupied with how to react and respond to the people willing to cross the Mediterranean Sea?

Even if it is only a little contributing factor, the severity and numbers of people affected by climate change makes it a large potential driver for migration and insecurity, now and in the future. Shreve, & Kelman, (2014) maintain that "Precautionary action to prevent conflict therefore makes sense, as the costs of responding to humanitarian crises are significantly higher than those of addressing their causes". They went further to state that "we believe simultaneously there is a need to strengthen the evidence base by new research on the root causes of migration and instability with a view to using these insights to improve policies on the ground".

10. Policy Responses

According to Born (2017) observed that it strikes that climate change is still often conspicuously absent from general debates on migration and security. An example is a recent report by UN Secretary-General Guterres on the Lake Chad region that failed to recognize climate change as a root cause.

While there have been regional concerns from countries which migrants originate, many multilateral organizations and governments have not quite accepted the interface between climate, migration and security. However, African countries as migrant origin decided to exploit the relationship between land degradation, migration and stability to builds upon and collaborate with other initiatives, such as the Great Green Wall that aims to combat desertification in Africa to launch Sustainability, Stability and Security (Triple S or 3S) initiative (UNCCD, 2017). This initiative, as the name implies, is aimed at promoting Security, Stability and Sustainability by stimulating the creation of green jobs and investment opportunities by migrants themselves. The goal is to create two million jobs for the most vulnerable groups, including youth, former combatants and returned migrants, increasing livelihood opportunities and combating land degradation in order to reduce the number of people migrating as a result of distress.

Outside the shores of Africa, the German Ministry for Economic Cooperation and Development has proposed a 'Marshall Plan with Africa' in order to increase youth employment opportunities. Similarly, The EU response to irregular migration and stability follows a two-pronged strategy, one focusing on the root causes of migration through development, and the other on strengthening the capacity of security forces of transit countries in the Sahel, the Horn of Africa and some North African countries (EEAS, 2017). The focus of these policies have mainly been on stimulating peace building measures and increasing 'resilience', by increasing investments to provide employment opportunities. Beside these, the EU has several tools for climate adaptation, countering political instability and mitigating conflicts, including the EU Emergency Trust Fund for Africa, amounting to €2.8 billion (EUTF, part of EDF), the Africa Peace Facility and the Instrument Contributing to Stability and Peace (IcSP). The EU has adopted a proposal for a European Fund for Sustainable Development (EFSD) for Africa and the Neighbourhood (2016) mainly aimed at stimulating investments and business opportunities and projected to be worth between €44 billion and €88 billion. Private finance is projected to play a major role in achieving this.

It is worthy to note here that while these instruments cover many aspects of climate change, conflict resolution and migration prevention, there is little or no deliberate integration between these fields. For instance, in the EU Sahel Strategy, launched in 2011 which adopted in 2015, climate change was not mentioned at all (EEAS 2016). It is therefore expected, that integrating efforts to combat climate change, improve livelihoods to prevent migration and boost conflict resolution could lead to synergies that increase resilience in all of these fields at lower costs (Mobjörk, et al. 2016). Another key issue is the time horizon of donor related projects, which generally does not extend beyond five years. Flowing from these, formulating long-term integrated regional strategies would allow for policy tools that take into account various interdependent drivers of instability and migration while ensuring future-proof strategies.

Conclusion

Several politicians, including the Prime Minister of the Netherlands and the President of The Gambia, have recognized in recent speeches at the UN General Assembly that climate change and sustainable development are key factors in countering instability and preventing irregular migration. Several initiatives are underway to address these issues in the UN Security Council, although this has so far not been done consistently.

It is implausible that climate change, poverty and displeasure with national leadership and inadequate governance will be addressed in such a way as to prevent all irregular migration and security. Conversely, effort should be intensified towards adjustment of regional policies with a view to strengthen flexibility by improving basic causes of migration that are associated with climate change and increased natural resource scarcity.

Empirical observations in Africa situation show that large populations are vulnerable and are expected to be affected by various climate changes which put them particularly at risk.

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