

“Adaptation in an era of vanishing territory – the political economy of the impact of climate change versus total migration, status of statehood and refugees in Africa”

AUTHORS	Lere Amusan  https://orcid.org/0000-0001-6403-5008 Ademola Oluborode Jegede
ARTICLE INFO	Lere Amusan and Ademola Oluborode Jegede (2014). Adaptation in an era of vanishing territory – the political economy of the impact of climate change versus total migration, status of statehood and refugees in Africa. <i>Environmental Economics</i> , 5(2)
RELEASED ON	Thursday, 12 June 2014
JOURNAL	"Environmental Economics"
FOUNDER	LLC "Consulting Publishing Company "Business Perspectives"



NUMBER OF REFERENCES

0



NUMBER OF FIGURES

0



NUMBER OF TABLES

0

© The author(s) 2026. This publication is an open access article.

Lere Amusan (South Africa), Ademola Oluborode Jegede (South Africa)

Adaptation in an era of vanishing territory – the political economy of the impact of climate change versus total migration, status of statehood and refugees in Africa

Abstract

Mass migration as a way of adapting to climate change impact is not new. However, the total migration of a permanent population from a defined territory as a coping response to the impact of climate change is only emerging. The development in such territories as the Marshall Islands raises a fresh concern about the possibility of total migration of a population from the territory which they have long occupied as a state, a development which has implications for low lying states in Africa such as Sao Tome and Principe and Madagascar which may stand the risk of submergence due to global warming. Yet, increase in sea level is not the only occurrence that may result in total migration of a population. The removal of a population from a defined territory may also be in response to other impacts including water availability, food security, health and extreme weather condition. When the whole population of a defined state totally migrates, it highlights the centrality of human survival to the topic of climate change. More importantly, it poses certain questions in international life namely, whether a whole population forced to leave in another territory still retain a claim to statehood? Equally too, it introduces the concept of climate induced migration as a factor to be considered in evaluating the legal status for refugeehood.

Keywords: Africa, climate change, total migration, adaptation.

JEL Classification: Q50, Q54.

Introduction

Existing and future climate change related global arrangements, even if strictly observed cannot on their own stabilize green house gases and avoid climate change (IPCC, 2007, p. 14). Therefore, adaptation with impacts of climate change has become a crucial aspect of global debate on climate change (*The Economist*, November 27-December 3, pp. 12-29). Methods of adapting to climate change impacts include moving houses, improving water supply, sowing drought resistant seeds, and mass migration (ibid, pp. 79-82). Adaptation to climate change impact through migration however raises fresh concerns about the legal status of a total population forced to abandon its territory due to effect of climate change. This does not only to the Marshall Islands, now at the risk of being abandoned by its population (*Associated Press*, 2010, 17 December), but also to low lying states including such African States as Sao Tome e Principe and Madagascar which may stand the risk of submergence due to global warming. For other States of Africa that are not in low lying geography, the possibility of total migration is by no means remote. Climate change impacts such as shortage in water availability, food security, extreme weather conditions and human health are likely sources of mass and total migration in Africa.

Academic interest on the subject of Adaptation to the impacts of climate change through mass migration, particularly when human survival is under threat, is not scanty. Kaplan rightly foresees that the core foreign-policy challenge for the twenty-first century is

coping with the ‘political and strategic impact of surging populations, spreading disease, deforestation and soil erosion, water depletion, air pollution, and possibly, rising sea levels – developments that will prompt mass migration and, in turn, incite group conflicts’ (Kaplan, 1994, pp. 44-76). Homer-Dixon (1999 & 2007) views along the same lines that unless effectively addressed, ‘climate change will help produce...insurgencies, genocide, guerrilla attacks, gang warfare, and global terrorism. More recent literature shows that an estimated 1 billion people will be forced to leave their homes between now and 2050, which might ‘de-stabilize whole regions where increasingly desperate populations compete for dwindling food and water’ (Christian Aid, 2007).

However despite several years of climate negotiation, commencing notably since the convening of the United Nations Conference on the Human Environment (UNCHE) held in Stockholm in 1972, total migration of a population due to climate change impact has not formed part of academic debate on the subject of climate change. Rather, the Stockholm conference identified *Common Heritage of Mankind* and sovereignty of states in exploiting their natural resources, with the mind of its effects on others (Greene, 1997, p. 317). The United Nations Framework Convention on Climate Change (UNFCCC), only hinted adaptation in its statement of principle, Article 3 (3), and statement of commitment, Article 4 (1) (b) and (e)¹. Although indu-

¹ The Convention was adopted at the United Nations Headquarters, New York on May 9, 1992. In accordance with Article 20, it was open for signature at Rio de Janeiro from 4 to 14 June 1992, and thereafter at the United Nations Headquarters, New York, from 20 June 1992 to 19 June 1993. By that date, the Convention had received 166 signatures.

strialised nations are committed to stabilize green house gas emissions and provide adaptation fund, the status of a complete population fleeing the impact of climate change was not part of the agenda to the Kyoto Protocol on climate change, which was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005.

The foregoing gap was noticeable even in the 2009 United Nations Climate Change Conference, commonly known as the Copenhagen Summit, which was held at the Bella Center in Copenhagen, Denmark, between December 7 and December 18. The conference included the 15th Conference of the Parties (COP 15) to the UNFCCC and the 5th Meeting of the Parties (MOP 5) to the Kyoto Protocol. Although, according to the Bali Road Map, a framework for climate change mitigation beyond 2012 was to be agreed upon, this was difficult, as in lieu of a summit collapse, solely a “weak political statement” signifying little concluded the conference.

Interesting though, the Bali Action Plan identifies adaptation as one of the key building blocks required for a strengthened future response to climate change to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012. There were also wish lists from Third World Countries (TWC) for adaptation funding. Nonetheless, it would seem that total migration as a coping approach with climate change was not discussed. This appears rather in the tradition of the argument that adaptation, if promoted, will rob the global campaign for the reduction of carbon emission of its steam.

At the December 2010 Cancun Climate Change Conference, parties established an Adaptation Framework with the goal of enhancing action through means including international cooperation and coherent consideration of matters relating to adaptation under the Convention. The action steps approved to help achieve this include an invitation to relevant multilateral, international, regional and national organizations, the public and private sectors, civil society and other relevant stakeholders to undertake and support enhanced action on adaptation at all levels. However, a gap in the discussion was the issue of total migration which was conspicuously absent.

The National Adaptation Programmes of Action (NAPAs) on climate change impact provides a process for Least Developed Countries (LDCs), most of which are in Africa to identify priority activities that respond to their urgent and immediate needs to adapt to climate change – those for which further delay would increase vulnerability and/or costs at a later stage. As of October 2008, the UNFCCC secretariat had received NAPAs from 38

LDCs¹. However still, none of the NAPAs documented the implications of total migration on state relations and international life in Africa.

At the Cancun conference, among other things, parties agreed to continue activities under the Nairobi work program on adaptation, which since 2005 are being undertaken under the Subsidiary Body for Scientific and Technological Advice (SBSTA) of the UNFCCC. The objective of the SBSTA is to assist all Parties, in particular developing countries, including the least developed countries and small island developing States to achieve adaptation related objectives including the improvement of their understanding and assessment of impacts, vulnerability and adaptation to climate change². In spite of its several sessions and decisions, the implications of total migration and its implications on international life and relations of states are not documented.

With copious evidence from Africa, this paper examines some impacts of climate change which may potentially result in total migration of given population from a territory for which they are known. It discusses the implications of such migration on the status of statehood and refugeehood. In the concluding remarks, some recommendations are made.

1. Impact of climate change and the concept of total migration in Africa

Africa is one of the most vulnerable regions in the world to climate change. Overall Africa has warmed 0.7 °C over the 20th century and general circulation models project warming across Africa ranging from 0.2 °C per decade to more than 0.5 °C per decade (Hume et al., 2001, pp. 145-68). Climatic changes of this magnitude will have far-reaching, negative impacts on water availability, food security, extreme weather events, human health and sea level increase. These impacts may in turn induce total migration. The potential in each of these issues to induce total migration is further explained below.

1.1. Water availability. Arguably one of the most widespread and potentially devastating impacts of climate change in Africa is changes in the frequency, intensity, and predictability of precipitation. Changes in regional precipitation will ultimately affect water availability and may lead to decreased agricultural production and potentially widespread food shortages. Climate change impacts negatively on the availability of water for human consumption. Currently, two-thirds of rural Africans and a quarter of urban dwellers in Africa lack access to clean, safe

¹ http://webcache.googleusercontent.com/search?q=cache:oK0tczLRktcJ:unfccc.int/national_reports/napa/items/2719.php+National+Action+Plan+on+Adaptation&cd=2&hl=en&ct=clnk&gl=ng (accessed December 16, 2011).

² http://unfccc.int/adaptation/nairobi_work_programme/negotiations_and_decisions/items/3916.php (accessed December 16, 2011).

drinking water (Simms, 2005). In Tanzania, for example, two of three rivers have reduced flow due to declining regional rainfall, which has had ecological and economic impacts such as water shortages, lowered agricultural production, increased fungal and insect infestations, decreased biodiversity and variable hydropower production (Orindi and Murray, 2005). The Pangani Basin in Tanzania is fed by the glaciers of Kilimanjaro, which have been melting alarmingly fast and are estimated to disappear completely by 2015-2020. The Pangani Basin is one of Tanzania's most agriculturally productive areas and is an important source of drinking, irrigation and hydropower production region. With Pangani Basin under threat of climate impact, it means that climate change threatens the productivity and sustainability of this region's resources, which hosts an estimated 3.7 million people (Thompson et al., 2002, pp. 589-593).

In West Africa, the Republic of Niger experienced drought conditions, particularly in 2005 which caused a decrease in crops by 224,000 tonnes, which affected approximately 3.5 million people in 3,755 different populations, mainly in the region of Tillabéri. In Sudan droughts, flooding and desertification worsen the conflicts and contribute to making Darfur one of greatest humanitarian crises of modern African history. Flooding of the River Nile in 2006 caused the death of 600 people, left 35,000 without a home and affected a further 118,000 people. Some 3,000 houses were destroyed in Sudan¹.

Repeated occurrence of the foregoing may pose greater challenge to human survival in those areas, which may propel affected populations into seeking for recourse in other parts of the country or territories outside their states.

1.2. Extreme weather events. Warming temperatures may also cause more frequent and more intense extreme weather events, such as heavy rain storms, flooding, fires, hurricanes, tropical storms and El Niño events (IPCC, 2001). Tropical storms can ravage coastal areas and intensify the impacts of sea-level rise by accelerating erosion in coastal areas and by removing protective natural buffer areas that absorb storm energy, such as wetlands and mangroves (Magadza, 2000, pp. 193-205). Extreme rainfall and subsequent heavy flooding damage will also have serious effects on agriculture including the erosion of topsoil, inundation of previously arid soils, and leaching nutrients from the soil. Regional fluctuations in lake levels are another impact of regional climate variations and are expected to

worsen with projected climate change. While land use change can have a dramatic effect on lake levels, climate variability is more unpredictable and difficult to manage as in lake levels in Lake Tumba in the Democratic Republic of Congo, and Lake Victoria in Kenya (Birkett et al., 1999, pp. 1031-1034). In 1997, floods and high rainfall, triggered by an El Niño event in eastern Africa, resulted in a surface rise of 1.7 meters in Lake Victoria and disrupted agricultural production and pastoral systems (Lovett et al., 2005, pp. 279-281). Extreme weather condition is a potential threat to human survival and a projected cause of total migration in Africa.

1.3. Food security. Recent changes in the limnology of Lake Victoria have for instance negatively affected its fishery (Kaufman et al., 1996, pp. 191-216). Food security related clashes and political conflicts are inseparable in states like the Sudan, South Sudan, Somalia, Ethiopia and Eritrea. The Darfur crisis could be linked to a resource driven conflict when crop farmers attacked herdsmen for overgrazing. Series of clashes over grazing, though at a low level, were yearly recorded in other African nations including Nigeria, Niger, Mali, Chad and Cameroon over common borders with other states because of grazing. The likely consequence of these developments is dispersal or cross border shift of population from one neighbourhood to another where safety is more certain and most importantly, food security can be achieved. An evidence of this is already visible in Ivory Coast where the large part of population has migrated from Burkina Faso where some marginal land is becoming inhabitable.

1.4. Human health. Climate variability has had far-reaching affects to human health, and includes, but is not limited to, the following: heat stress, air pollution, asthma, vector-borne diseases (such as malaria, dengue, schistosomiasis (also referred to as swimmer's itch or snail fever) and tick-borne diseases), water-borne and food-borne diseases (such as diarrhoeal diseases). Climate variability and extreme weather events, such as high temperatures and intense rainfall events, are critical factors in initiating malaria epidemics especially in the highlands of western Kenya, Uganda, Ethiopia, Tanzania, Rwanda and Madagascar (Zhou et al., 2004, pp. 2375-2380). While other factors, such as topography and health preparedness can influence the spread of malaria, scientists have found a correlation between rainfall and unusually high maximum temperatures and the number of malaria cases (Githeko and Ndegwa, 2001, pp. 54-63). In addition to longer seasons that are suitable for malaria spread, temperatures have also been warming in formerly cooler, higher-elevation East African highlands. Subsequently, these areas are

¹ <http://www.semide.net/thematicdirs/news/experts-will-be-studying-conflicts-caused-climate> (accessed December 15, 2011).

experiencing a spread of malaria in populations that had not previously been frequently exposed to the disease (Patz, 2005, pp. 310-317). Individuals have always had reason to move cross borders or relocate on the account of the need for medical treatment. Climate change may thus create health conditions that are projected to exacerbate the occurrence and intensity of migration.

1.5. Sea-level rise. Sea-level rise and resulting coastal erosion is of particular concern to coastal states including Kenya and Tanzania, and also to low lying states such as Sao Tome and Principe and Madagascar. Warm sea surface temperatures, extreme weather events, and sea-level rise can lead to the destruction of coral reefs, which absorb the energy of ocean swells. Coral reef loss is a significant cause of coastal erosion and a major coastal management issue in both Kenya, Tanzania and West Africa littoral states.

In the tea-producing regions of Kenya, the world's second largest exporter of tea, a small temperature increase (1.2 °C from now) and the resulting changes in precipitation, soil moisture and water irrigation would cause large areas of land that now support tea cultivation to be largely unusable. Economically, this would have far-reaching impacts because tea exports account for roughly 25% of Kenya's export earnings and employs about three million Kenyans (10% of its population) (Simms, 2005). A 2004 Tsunami felt along the Indian Ocean had impact on Somalia where thousands of people were declared dead and portends some risks for low-lying coastal states such as Madagascar, Sao Tome and Principe and Equatorial Guinea, which may stand at the risk of submergence due to increase in the sea level from global warming.

In all, although total migration due to climate change impact may occur over time in populous African States, in States with smaller populations, harsh realities of climate change may resort in total migration more drastically. When this occurs, it poses serious concerns on the definition of statehood and the status of migrating population in their host community. This is examined more closely in the ensuing paragraphs.

2. Climate induced migration versus the definition of statehood

According to the Montevideo Convention of 1933, the state as a person of international law should possess the following qualifications: a permanent population; a defined territory; government; and capacity to enter into relations with other states¹.

The foregoing qualifications are considered one after the other with the view of highlighting the challenges that climate induced total migration pose to the qualifications of statehood under international law.

2.1. Permanent population. Under international law, no minimum population size is required for a state to be formed. For instance, over fifty states in the world have populations of less than one million while Nauru has less than 10,000 inhabitants. Although no minimum population size is required, an empty state seems unknown to international law. Yet this is what total migration in response to climate change, presents to international law; a population that has abandoned their space, with no likelihood of return. This is distinguishable from situations where populations in response to war or famine flee with the hope of return when circumstances in their nations improve or stabilise. Total migration in response to climate change does not present such hope to migrants as it seems irreversible once it occurs.

2.2. Defined territory. It is not compulsory that a state should have clearly defined and undisputed borders, but it must have a territory of its own (ICJ, 1969). The borders of nation of Israel for instance have been a subject of dispute for long. In Africa there had been boundary dispute between Algeria and Morocco, Kenya and Somalia, Nigeria and Cameroon. In addressing these disputes in Africa, the principle of *Uti Possidetis* is adopted to the end that colonial boundaries, however arbitrarily drawn by the imperial powers are to be respected.

With origin in the Latin America, the principle of *Uti Possidetis* has been endorsed by the Organization of African Unity, since 1964, when at the first session of the Conference of African Heads of State and Government, it was resolved that all member states of the OAU 'pledge themselves to respect the borders existing on their attainment of independence. The approach is to avert the chaos that inevitably would result from attempts to redraw boundaries to coincide with ethnic groupings.

The implication of the *Uti Possidetis* principle fell for consideration in the *Frontier Dispute case*, between Burkina Faso and Mali. In that case the International Court of Justice (ICJ) (1986 Report 554) held that the principle of *Uti Possidetis* was a customary rule of 'general scope', which applied to a new state from the moment it became independent. Consequently, territorial title is freezed and the right to self determination is confined to a territory defined by the colonial power. In the *Frontier Dispute*

¹ In more recent times however, human rights and self determination have become essential additions to the requirements for statehood in

international law. This new development was given support by Guidelines on the Recognition of New States in Eastern Europe and in the Soviet Union issued by the European Community (1991) 62 BYIL, 559; (1992) 41 ICLQ 477.

case, the ICJ took notice of the fact that the principle conflicts with the right of peoples to self determination (Barie, 1988, p. 451). However the court said, in line with 1986 Reports 567:

The maintenance of the territorial status quo in Africa is often seen as the wisest course, to preserve what has been achieved by peoples who have struggled for their independence, and to avoid a disruption which would deprive the continent of gains achieved by much sacrifice. The essential requirement of stability in order to survive, to develop and gradually consolidate their independence in all fields, has induced African states judiciously to consent to the respecting of colonial frontiers, and to take account of it in the interpretation of the principle of self determination.

This principle of *Uti Possidetis* is also closely related to that of 'territorial integrity', which is asserted in the Declaration on the Granting of independence to Colonial Countries and Peoples' and other resolutions of the General Assembly on the subject of self determination.

When total migration occurs in response to harsh reality of climate change in Africa, the need to survive may revive the old debate about border lines. This will be more pronounced particularly where favorable conditions are found in one land but missing in wasting states. This development potentially challenges the concept of 'defined territory' as most ethnic population in Africa are sparsely spread over different countries. The Wolof people for instance inhabit the modern nations of Senegal, Gambia and Mauritania, where they represent 40%, 15% and 7% of the population, respectively. An argument of *Uti Possidetis* to support colonial boundary, will appear meaningless, if raised in defence of a claim to territorial space in the community to which they migrate, let alone, totally migrate. This situation will appear, not only true for the Mambillan people whose population is shared between modern state of Nigeria and Cameroon, but equal weight to other parts of Africa where similar circumstances exist.

3. Government

To meet the Montevideo requirement for statehood, in tune with SvBanda 1989 (4) SA 519 (B) 540 G-H, a State must have a government which is in effective control of its territory, and that is independent in any other authority. The question here is does a totally migrated population still retain a territory in respect of which it can exercise effective control? In answering this, one might argue that while it has a territory, there is no populated land in respect of which effective control can be exercised. The contrast to this is that control can still be exercised in

respect of empty territories. International practice sets aside the condition of effective exercise of State authority if an uninhabited territory is concerned. In the case of the Clipperton Island¹ it was stated:

... if a territory by virtue of the fact that it was completely uninhabited is, from first moment when the occupying State makes its appearance there, at the absolute and undisputed disposition of that State, from that moment the taking of possession must be considered as accomplished, and the occupation is thereby completed...

This may not however apply in the case of total migration of a population as migrants may not be in one country. It is therefore unlikely that control over a wasting territory can be maintained by climate induced migrants. Moreso, a totally migrated population cannot run or govern itself in the state of its host in that there is no population at home in respect of which control is being exercised. Consequently, there can be only one government to which it is accountable, that is the government of the host whose territory it now occupies and whose laws it is subject.

4. Capacity to enter into relations with other states

The capacity of a state to enter into relations with other states is a consequence of independence. An entity which is subject to the authority of another state in the handling of its foreign affairs fails to meet such requirement and cannot therefore be described as an independent state. For obvious reasons, a totally migrated population lacks the capacity to enter into relation with other states. First, it is not possible that such specie of migration will land the population into a single host nation, thereby making coordination of its affairs almost impossible. Second, relations with other states can only be entered into where there is an effective government, something which is lacking in the case of total migration. Third, relations include commercial and diplomatic relations which are not exercisable without a defined territory.

Having demonstrated that climate change can lead to total migration and that an entity will lose its statehood in international law if it totally migrates, it merits some consideration too to describe the implication of total migration on the status of refugee-hood in Africa.

5. The status of refugees

Climate change induced migration poses some challenge to the traditional qualifications for evaluating the status of refugeehood as enunciated in the Or-

¹ U.N. Reports of International Arbitral Awards, Vol. 2, p. 1111. English text in American Journal of International Law (1932).

ganization of African Unity (OAU) Refugee Convention of 1969, an Africa's efforts at a separate instrument dealing with Refugees. The OAU Convention is distinguishable from the earlier United Nations Refugee Convention which had earlier been adopted and entered into force in 1951 and 1954 respectively. Of relevance to climate change is the fundamental distinction existing between the OAU Convention and the UN Convention in the definition of Refugee. While the global instrument requires only "a well founded fear of being persecuted" as a fundamental precondition for refugee status, the OAU Convention (1969, art 1(2)) extends the term to include anyone who is compelled to flee a country of residence 'owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or the whole of his country of origin or nationality'. Thus the question in the main here is whether a population fleeing in the face of climate change impact in Africa would qualify for status of refugees in the country of their host. It is argued here that this is possible if the grounds for obtaining refugee status under the OAU Conventions are pragmatically interpreted.

To begin with, it will seem that a population or an individual fleeing the harsh realities of climate change cannot lay claim to the status of refugee on the grounds of a well founded fear of persecution, except where such persecution results from a belief based on climate change issues. This position is supported by the flexibility of the term 'persecution' in international law. In defining 'persecution' for instance, the UNHCR Handbook on Procedures and Criteria for Determining Refugee Status¹ provides that:

There is no universally accepted definition of persecution, and various attempts to formulate such a definition have met with little success. From article 33 of the 1951 Convention, it may be inferred that a threat to life or freedom on account of race, religion, nationality, political opinion or membership of a particular social group is always persecution. Other serious violations of human rights – for the same reasons – would also constitute persecution.

The next additional qualification of the OAU Convention is '...external aggression, occupation, foreign domination... While it is certain that the claim for refugeehood on the ground of climate change impact cannot be sustained as a direct consequence of 'occupation' and 'foreign domination', this position can be debated in the case of 'external aggression'. Traditionally, when used, 'external aggression' connotes attacks, particularly military attacks

when made against a nation. The Rome Statute of the International Criminal Court provides for aggression as a crime but does not go as far as defining it. At the Rome Conference, various proposals were made on the definition of the crime of aggression. There were proposals for a more extensive definition to include blockade of ports, coasts, territory, and air routes of a State by the armed forces of another State. There were calls for an inclusion of 'aggression to the environment'.

The OAU Convention allows application for refugee status for any person fleeing from an attack that qualifies as external aggression, but offers no definition on what amounts to external aggression. One would however argue that as it is with the definition of 'persecution', the definition of 'external aggression' should not be less flexible to include 'aggression to the environment'. For instance, for long, it has been the argument of the global south that the harsh reality of climate change is generally caused by the developed nations who have refused to cut down on activities in their land which impact on global environment. Such activities include carbon emissions from industries and deforestation. These activities pose great risk to the health of population and in the face of unwillingness to stop or take serious measures to prevent this; it is argued that these constitute acts of external aggression, thus providing a basis for justifying climate induced refugee seeking.

Importantly too, the foregoing argument agrees with the intent of the African Union Solemn Declaration on a Common African Defence and Security Policy (CADSP). This was adopted at the 2nd Extraordinary Session of the Assembly of Heads of State and Government held in Sirte, Libya from February 27-28, 2004. This was followed by their Ordinary Session in Addis Ababa from January 29-30, 2007. It was a proactive Declaration based on the notion of human security rather than the narrow approach which perceived security solely as state security. This was further reinforced by the Declaration of the AU on Climate Change and Development in Africa which takes cognizance of the African economic and production systems to climate change and variability. It also supports various claims by the African states for reparation and fund for adaptation to climate change impacts from the global north.

Thirdly, although it prescribes the ground of '...events seriously disturbing public order in either part or the whole of his country of origin or nationality' as a condition for granting refugee status, the OAU Convention again offers no definition of such 'events'. However, considering the impact of climate change on populations, one can argue that climate change impact, particularly in terms of water availability, food security, and rise in sea levels

¹ Published by the UNHCR, HCR/IP/4/Eng/Rev 2 (Geneva, January 1992) at para 51. The Handbook is designed to guide governmental officials concerned with the determination of refugee status.

should each constitute an event which can seriously disturb public order, and thus forming a strong basis to be used in evaluating refugee status. As Viljoen (2007, p. 256) argues, events such as famine in Africa could constitute a serious factor in evaluating refugee status. This view departs from the restrictive view of the UN Convention, which Oloka-Onyango (1995/96, p. 364) has interpreted as 'grounded in the philosophy that accords primacy of place to political and civil rights over economic, social, and cultural rights'. Hence it is argued that the OAU Convention on Refugees creates an environment that allows for migration in the face of harsh socio-economic conditions including climate change induced migration.

Conclusion

This paper examined the climate change impact and total migration of a population in the context of adaptation in an era of vanishing territory. It considered the implications of this on the status of statehood and refugees in Africa. It is clear that instead of suffering the impacts of climate change such as scarcity of water, rise in sea level, ill health conditions, harsh weather conditions, migration is a possible way of adapting to harsh realities of climate change. Where this results to total migration of an entire population, it challenges the traditional concept of statehood and calls for more pragmatic interpretation of the norms relating to the evaluation of refugee status. What then emerges as recommendations? As the impact of climate change becomes harder and people respond by migrating from one territory to other, safer African

states where climate impact are comparatively lesser can help accommodate people from wasting territories. This will not be possible without a pragmatic approach which broadens the qualifications for evaluating refugee status to include climate impact induced ground or better still, interprets existing qualifications in such way and manner that accommodates migration as a result of climate change. Also, traditional concepts that naturally inhibit migration such as sovereignty and *Uti Possidetis* should be further relaxed to accommodate adaptation through mass migration.

No doubt, there is normative framework in the African Union (AU) system, including the AU Declaration on Climate Change and Development in Africa and AU Solemn Declaration on a Common African Defence and Security Policy (CADSP), to tackle climate change related issues. African states are also part of the global arrangement which enjoins every state to develop a National Action Plan on Adaptation. However without a complementary continental policy that views total migration as a possible trend in the subject of adaptation to the impacts of climate change, these norms may not be useful to the states, particularly low lying states which may have to eventually cope with the impacts of climate change through total migration. Hence, there is the need to integrate and interpret these norms in the national policies of the member states of the AU in such way and manner that accommodates total migration as a measure of adapting to the impacts of climate change.

References

1. Associated Press. *If an island vanishes, is it still a nation?* <http://hendrawanm.wordpress.com/2010/12/07/if-an-island-state-vanishes-is-it-still-a-nation/> (accessed December 14, 2011).
2. Barie G.N. (1988). *Uti Possidetis versus Self-determination and Modern International law: In Africa the chickens are Coming Home to Roost*, TSAR 451.
3. Birkett, C., R. Murtugudde and T. Allan (1999). Indian Ocean climate event brings floods to East Africa's lake and the Sudd marsh, *Geophysical Research Letters*, 26, pp. 1031-1034.
4. Christian Aid (2007). *Human Tide: the Real Migration Crisis*, Christian Aid. http://www.christianaid.org.uk/Images/human_tide3_tcm15-23335.pdf.
5. Githeko, A.K. and Ndegwa, W. (2001). Predicting malaria epidemics in the Kenyan Highlands using climate data: a tool for decision-makers, *Global Change and Human Health*, 2, pp. 54-63.
6. Greene, O. (1997). Environmental Issues, in Baylis John and Steve Smith (eds.), *The Globalization of World Politics: An Introduction to International Relations*, New York: Oxford University Press, pp. 313-337.
7. Homer-Dixon, Thomas (2007). Terror in the Weather Forecast, *New York Times*, 24 April. www.nytimes.com/2007/04/24/opinion/24homer-dixon.html?_r=1&oref=slogin. Accessed on January 3, 2012.
8. Homer-Dixon, Thomas (1999). *Environment, Scarcity and Violence*. Princeton, NJ: Princeton University Press.
9. Hulme, M., R. Doherty, T. Ngara, M. New, D. Lister (2001). African climate change: 1900-2100, *Climate Research*, 17, pp. 145-168.
10. ICJ (1969). Reports 3, para 46.
11. Intergovernmental Panel on Climate Change (IPCC). Summary for policymakers, in the Synthesis Report of the IPCC Fourth Assessment Report (2007), 14, http://www.ipcc.ch/pdf/assessment-report/ar4_syr_spm.pdf (accessed December 10, 2010).
12. IPCC (2001). *Climate Change 2001, Synthesis report*, Cambridge University Press, Cambridge.
13. Kaplan, Rober D. (1994). The Coming Anarchy, *Atlantic Monthly*, 2 (2), pp. 44-76.
14. Kaufman, L., L.J. Chapman, and C.A. Chapman (1996). The Great Lakes, pp. 191-216, in T.R. McClanahan, and

- T.P. Young (editors). East African Ecosystems and Their Conservation, Oxford University Press, New York.
15. Lovett, J.C., G.F. Midgely, P.B. Barnard (2005). Climate change and ecology in Africa, *African Journal of Ecology*, 43, pp. 279-281.
 16. Magadza, C.H.D. (2000). Climate change impacts and human settlements in Africa: prospects for adaptation, *Environmental Monitoring and Assessment*, 61, pp. 193-205.
 17. Oloka-Onyango, J. (1995-1996). The Plight of the Larger Half: Human Rights, Gender Violence and the Legal Status of Refugee and Internally Displaced Women in Africa, *Denver Journal of International Law and Policy*, 24, pp. 349, 364.
 18. Orindi, V.A. and L.A. Murray (2005). Adapting to climate change in East Africa: a strategic approach. Gatekeeper Series 117: International Institute for Environment and Development.
 19. Patz, J.A., D. Campbell-Lendrum, T. Holloway and J.A. Foley (2005). Impact of regional climate change on human health, *Nature*, 438, pp. 310-317.
 20. Simms, A. (2005). Africa: up in smoke? The second report from the Working Group on Climate Change and Development, New Economics Foundation, London.
 21. *The Economist* (2010). How to live with climate change, November 27-December 3, pp. 12-29.
 22. Thompson, L.G., E. Mosley-Thompson, M.E. Davis, K.A. Henderson, H.H. Brecher, V.S. Zagorodnov, T.A. Mashiotta, P-N. Lin, V.N. Mikhaleiko, D.R. Hardy and J. Beer (2002). Kilimanjaro ice core records: evidence of Holocene climate change in tropical Africa, *Science*, 298, pp. 589-593.
 23. Viljoen, F. (2007). *International Human Rights Law in Africa*, Oxford: Oxford University Press, p. 256.
 24. Zhou, G., N. Minakawa, A.K. Githeko, and G. Yan (2004). Association between climate variability and malaria epidemics in the East African highlands, *Proceedings of the National Academy of Sciences of the United States of America*, 101, pp. 2375-2380.