



GENERAL ASSEMBLY
ASSEMBLÉE GÉNÉRALE
ASSEMBLEIA GERAL
جمعية عمومية

#CODESRIA14

Creating African Futures in an Era of Global Transformations:

Challenges and Prospects

Créer l'Afrique de demain dans un contexte de transformations mondialisées :

enjeux et perspectives

Criar Futuros Africanos numa Era de Transformações Globais:

Desafios e Perspetivas

بعث أفريقيا الغد في سياق التحولات المعولمة :

رهانات و آفاق

Climate Change, Desertification, Livelihood Challenges and Urban Future : A Reflection on Nigeria

Mohammed-Bello Yunusa



CODESRIA

08 - 12 June / Juin 2015

Dakar, Senegal





Abstract: *There is a strong nexus between the global occurrences of climate change, environmental degradation particularly in the arid and semi-arid regions of Africa. The consequences of climate change including devastation of sources of rural livelihoods and population movement compound rural and urban development issues. The ways for African states can to navigate a path for a sustainable economic and human development in the future are those of environmental conservation and restoration to stem the tide of rural population movement to towns and cities while at the same time creating physical and economic space for poor migrants to the cities.*

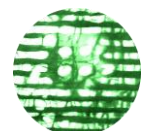
INTRODUCTION

The vision for the future is premised on the experiences of the past as well as the exigency of the present. Climate change is a process that travels through time together with its ramifications. There is no gain saying that the atmosphere within which climate change occurs is a global umbrella. Thus, no part of the world is insulated from the repercussions of changes in the properties of, and therefore the composition of the atmosphere. By implication, Africa has been and is still, like other parts of the world, under the influence of climate change and the manifestations of such on land uses and biodiversity.

African, barely over a decade into the twenty first century, considering the wide spectrum effect of climate change, is required to analyse issues of climate change in relation, to the survival of peoples in Africa. This is to facilitate the location of Africa in the context of climate change, land use change implications and livelihood modes organization and re-organization process. The location of Africa in these processes should lead to the indication of needed coping or livelihood strategies for the years to come. In doing this, possibilities for the future may be established.

A major consequence of climate change is the phenomenon of increasing arid and semi arid lands, that is, desertification. Desertification as a phenomenon is a gradual process. It is driven by natural and man-made factors such as changes in climate and human livelihood activities. It has been claimed that “desertification may be triggered through natural processes, such as drought or the actions of wild animals in destroying vegetation --- however, human actions most regularly induce or speed up these processes” (Potter, Binns, Elliot and Smith, 2004:249). Drought itself is not unrelated to climate change.

The processes are more pronounced in the dry lands of the world. In the dry lands, evapo-transpiration exceeds precipitation as in the arid and semi arid regions of Africa. In Africa, the rate is alarming as the Sahara desert is estimated to have extended southwards to about 48 kilometres (Hassan, 2013). Wherever it occurs, desertification has implications for both human, non-human populations and vegetation cover of areas that is caught up by the





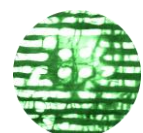
processes. The processes, either natural or man induced, is marked by the ever extending frontiers of the degraded land and unbearable climatic and ecological conditions for human populations and bio-diversity. Desertification reduces the capacity of the ecosystem to support life. These processes induce human population movement and complicate rural and urban development issues.

When climate change intensifies and its consequences manifest in the desert or dry land extensions, what happens to the people and their economic activities – what do the people do to subsist; and how does their decision to do what they do affect other regions, human settlements particularly towns and cities? These are the main issues this paper seeks to analyse and draw attention of development planners and policy makers. The expectation of the consequences of desertification on human settlements - villages, towns and cities is premised on the fact that when the ecosystem fails, it becomes unsuitable for survival and continuous inhabitation and therefore the decisions of inhabitants of affected areas is bound to snowball to other places.

This paper therefore, is not about climate change and its consequences like desertification process per se. Rather, it dwells on the implications of the desertification process, as reinforced by climate change, for human population activities including mobility, livelihood organization and urban development and management. To this end, this paper examines desertification that results from climate change mainly in relation to its consequences for livelihoods organisation and the reactions of affected persons to climate change and the resultant processes of desert encroachment. The essence is to connect climate change and the resultant desertification to situations in human settlements and population movement and thereby bring out the challenges of such as a basis for visioning human survival in Africa development process. In doing this, the paper relies on existing data with illustrations from some countries and more specifically, Nigeria. This visioning is a *sin-qua-non* for the growth and development of the continent. This is crucial as efforts to understand the processes and consequences of climate change and desertification have been focused more on places where desertification occurs. The point is that the consequences of climate change and desertification snowballs to villages, towns and cities as illustrated by the Nigerian circumstances.

CLIMATE CHANGE

Climate change is the alteration of chemical properties of the atmosphere (UN-Habitat, 2011:5) over a period of time (Ogbo, Ndubuisi and Ukpere, 2013). The major cause of the alteration is industrial development and other human activities that induce the emission of green house gases (GHGs) that are particularly generated from burning of fossil energy, land use changes and industrial production process. Industrialization increases the emission of





carbon-dioxide and nitrous oxide into the atmosphere. In the words of Salami (2014), climate change is connected to the burning of fossil oil, change in land use, exploitation of natural resources and disposal of waste from households and industrial establishments. The consequences of this process are the over stretching of the atmosphere as manifested in the destruction of the ozone layer and exposing the earth surface to excessive sun rays. Thus, climate change is a major global environmental challenge as it over turns the ecosystem and destroys the bio-diversity (Salami, 2014).

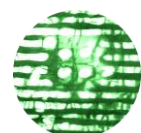
The generation and emissions of GHGs as a result of fossil energy consumption, industrial emissions and land use changes is not evenly distributed across the world. The UN-Habitat (2011) notes that while China (18.89%) and the United States of America (18.66%) are almost at par in the generation of metric tons of GHGs in carbon dioxide equivalent, South Africa generates only 1.29% of global GHGs; and the rest of Africa generates only 4.29%. As the campaign for the reduction GHGs emission heats up, between 2005 and 2007, the emission in China grew by 16.5% and that of USA declined by – 0.1%. On the other hand the emission in South Africa increased by 6.2% and about 4.1% in the rest of Africa.

As the GHGs are being emitted to the atmosphere and the ozone layer is depleted, other than primary production activities of man on earth, the construction of human settlements is another driver of climate change. Towns and cities of the world are covered by buildings, transportation infrastructure; the air is increasingly polluted, waste water empties in fresh water bodies while solid waste from homes and industries pollute the land (Husung and Leiser, 1996:219). A combination of these creates micro-climates and indeed, heat islands in the towns and cities as demonstrated by data from Ibadan, Nigeria (Oguntoyinbo, 1981).

However, the situation in Africa remains a paradox. African is though fast urbanising, it is still the least urbanised globally. Yet again, it is the least industrialised and the few industries are collapsing under globally economic depressions. The continent produces the least GHGs in carbon dioxide equivalent and has the least urban heat island problems compared to nations of North America and Western Europe but it unfortunately suffers the consequences of climate change the more. The effects of climate change in Africa particularly on its vegetation, bio-diversity, agriculture and general environmental conditions will tend to heighten in the years ahead. It has indeed been asserted that global warming that comes with climate change will be more intensive in Africa (Salami, 2014) in years to come.

CLIMATE CHANGE AND SUB-SAHARAN AFRICA

Climate change is not a consistent unidirectional processes rather it shows some elements of oscillation. It has been noted that over a long time span, “the Saharan margins were wetter in



the (periods between) 16th and 18th centuries” (Adams, 2001:186) even as droughts periodically occurred. However as Adams (2001) further notes,

Towards the end of 18th century, general conditions were becoming more arid, and dry conditions persisted through the 1828 to 1839 drought until wetter conditions began in third quarter of the 19th century (Adams, 2001:186).

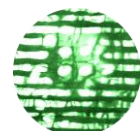
The point is that, even with observable climate change and its implications for global environment, agriculture and economic growth the processes have been gradual as the periods have varying levels of wetness and dryness as a persistent feature climate change in tropical Africa. This is as it was noted that rain fall volumes persistently dropped by about 20% to 40% in the years between 1930 and 1990 (Salami, 2014).

Climate change and development, based on its characteristics has several implications for income earning, economic growth and survival of the people. Climate change is characterised by unpredictable pattern of rain fall, increased heat wave on earth surface, and rising sea level all of which impact on the capacity of both urban industrial communities as well as rural communities. These main features of climate change either individually or in some combination have the capacity to destroy investments, infrastructure, lives and properties including loss of livelihoods and incomes. In the words of Agbo, Ndubuisi and Ukpere (2013:222):

There is a growing consensus in the scientific literature that over the coming decades, high temperatures and changing precipitation levels caused by climate change will be unfavourable for crop growth and yield in many regions and countries.

Africa remains a primary production continent such that unfavourable crop growth and yield puts Africa at the cross roads of food security and increasing poverty. It is in this context that climate change is said to be inducing disasters and risks of particularly livelihood organisation; and thereby blocks the possibilities of poverty reduction in Africa (Agbo, Ndubuisi and Ukpere, 2013). Based on the strong linkages between climate change and its manifestations on development in terms of economic growth and human development, Nigeria for instance, is greatly at risk of climate change in the areas of food and nutrition security, poverty and hunger reduction and overall economic growth and development (Agbo, Ndubuisi and Ukpere, 2013). The major outcome of climate change that threatens economic growth and development in Africa are the ever extending arid and semi arid areas – desertification as well as incidences of floods which environmental circumstances in Nigeria that apparently illustrates of this. Indeed, drought, a precursor to desertification and flooding are on the increase in scale and frequency in Nigeria.

DRY LANDS AND DESERTIFICATION

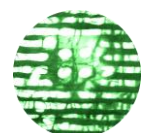




Dry lands and desertification are induced and reinforced by climate change. It is estimated that two-thirds of Africa is dry land and desert and within this lives the vulnerable people. Among this group of people are the poor, the landless and if they own land, the land is unproductive with respect to food insecurity, unemployment exclusion from main stream socio-economic system. The dry lands are major spots of land degradation which is “the single most pressing current global problem” (Potter, Binns, Elliott and Smith, 2004: 249). The magnitude of desertification and the dry land challenges lies in the assertion that “35% of world’s land surface --- and one-sixth of the world’s population --- were at risk from desertification” (Potter, Binns, Elliott and Smith, 2004: 250).

With specific reference to Nigeria, the dry land which has an estimated population of over 40 million people is further threatened by drought and desertification. The dry land of Nigeria is characterised by 508 to 1016 mm of rainfall that occurs only for five months. Yet the temperature is between 55 to 100 degrees Fahrenheit. The vegetation is that of Sudan zone. This rainfall, climate and vegetation have further been influenced by human activities that have stepped up the threat and occurrence of drought, desertification and land degradation in the region. Indeed, this presents a precarious condition for the survival of the human population. Unsustainable farming and fuel wood demands contribute to deforestation in the region which accentuates the process of desertification and land degradation. The degradation is described as “the deterioration or destruction of environment – (as exhibited by)—deforestation, --- and other ecological hazards” (Chanhau, 2010:12). This worsens climate change and has negative effects on food security and livelihoods of communities. Desertification and land degradation resulting from climate change are thus regional problems that span across the African arid and semi-arid zone.

The definition of desertification is very controversial and debatable particularly with respect to its causes, nature, severity, and even the techniques of its determination or assessment (Gbahabo, 2011). Thus we find a situation where various definitions or conceptions of desertification have different emphases. Chapter twelve of Agenda 21 of the United Nations Conference on Environment and Development (UNCED) notes desertification as a process of “land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors including climatic variations and human activities”. This concept of desertification by the UNCED emphasises areas that are prone to it and land degradation as a product of the processes of climate change. Other notions of desertification have emphasised what goes on in the processes of desert encroachment. For instance, according to Amadi, Nwagboso, Kwaga and Akoson (2011), desertification basically involves the destruction of biological potential of land and the ecosystem. The controversies seem to have narrowed since the 1977 United Nations Environment Programme World Conference on Desertification as “there have been improvements on a consensus definition and an assessment database” (Potter, Binns, Elliot and Smith, 2004:250).





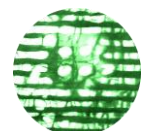
Major inducements of desert encroachment include climate variations, poor land use management strategies, bush burning, over-grazing and excessive harvest of forest resources for household activities. In other words, land use practices and production technologies of communities as inherent in cultivation techniques, fallow period, over-grazing, bush burning and over exploitation of forest wood for household fuel are central to the increasing tempo of desert encroachment. The state of poverty or human suffering is further stepped up in places where desertification occurs.

However, the potency of all these factors to drive the rate of desert encroachment is somehow conditioned or boosted by the level of rain fall. Given that dryness or scanty availability of water are major features of desert areas, lack of or inadequate rain fall is a major component of the driving forces of desertification processes. It is in this context that Schuz and Kundzewicz (1997) argued that since deserts expands or contract depending on rainfall, “drought is part of the causes of desertification; but essentially, it is a man made problem resulting from placing too much pressure on land” (Schuz and Kundzewicz, 1997:63) that is driven by climate change. Desertification occasioned by drought reduces economic production of the inhabitants of such areas and creates life threatening situations. Indeed, when the desert expands, crop failure, death of livestock and outright famine become major challenges that threaten human existence.

Desertification is a global concern. In Nigeria, The process of desertification is active in the Sudan-Sahel dry land region. In this region are such states as Sokoto, Zamfara, Kebbi, Katsina, Kano, Yobe, Borno that are regarded as desertification frontline states of Nigeria. These states are under the pressure of extending boundaries of the desert and its characteristics. Due to the increase in the rate of the desertification, it was estimated by the UNCED that desertification affects 35 – 40 million square kilometres or about 30% of World land area. It has been estimated that a sixth of the world population are at risk of desertification (see Barrow cited in Potter, Binns, Elliot and Smith, 2004:250). In the case of Nigeria where the Sahara desert frontline states experience desertification, as noted by Mustapha (2011), the Sahara desert moves Southwards at a speed of about 0.6km annually and in the process about 350,000 hectares of land become desert land annually. The speed and rate of loss of land are furthered by the fact that people at the front line states greatly exploit the land, its resources for survival and are therefore prone to desertification and its consequences. The link between climate change and human activities and loss of land to desertification is cyclical and self re-enforcing. Desertification destabilises the ecosystem, human populations and their livelihoods.

DESERTIFICATION, FLOODING AND LIVELIHOODS

As asserted by Olawoye, Obianuju and Eleri (2010), climate change and its induced desertification processes and flooding are not mere scientific processes. Desertification has implications for human settlements, livelihoods and other socio-economic aspects of human population. Thus, in this frame, development analysts have long for instance, made



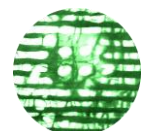
desertification “an integral theme within mainstream sustainable development” (Adams, 2001:177). With desertification set in motion, the rates and volume of crop failure, death of livestock and general famine are constantly on the increase. In this way desertification increases food insecurity and reduces production capacity of individuals and families. The consequence of this for the inhabitants of affected areas, like those in the front line states of Nigeria, where over 90% survive on primary production in the sense of exploitation of land and its resources or the ecosystem, is tremendous. Indeed, the consequences of desertification are always very apparent as Gbahabo (2011) claimed that “what seems certain about desertification is its effect on social, economic and political dimensions of existence” (Gbahabo, 2011: 19). At the centre of desert encroachment effects is the human population that bear the burden of encroachment through destabilisation of livelihoods and induced migration of affected persons to other places mainly towns and cities for new or supplementary livelihoods.

Flooding, the situation in which rain water or risen levels of surface water bodies submerge lies and properties is another fall out of climate change. It is a process through which livelihoods cause damage and productive infrastructure and induce loss of income (Salami, 2014). The situation in Nigeria in the recent time is illustrative. The 2012 several flood flash points in Nigeria – Makurdi, Lagos, Benin, Port Harcourt and other settlements along the banks of rivers Benue and Niger that resulted from overflow of the river Niger and run-off rain water flood grievously affected various aspects of lives. For instance in 2012, the flood in Lokoja, the capital of Kogi State of Nigeria interrupted the flow of traffic of people and goods between the North and Southern parts of Nigeria as the highway was cut off for day. Further to blocking of flow of goods, people and services, residential areas, farmlands and therefore crops, schools and other infrastructure were submerged and destroyed. Several buildings collapsed and an estimated 1,796 houses were submerged, and over twenty billion worth properties, were destroyed (Awodi, 2014). Families that were displaced took refuge in schools and public offices forcing schools and work to close until the flood subsided.

From all these, and with human population at the centre of the disasters, climate change, desertification and flooding have capacity to induce livelihood changes and population movements in the continent.

MIGRATION AS REACTION TO CONSEQUENCES OF CLIMATE CHANGE

Degraded land cannot support life rather it impoverishes and excludes the affected population from productive sectors of the region, country or continent. Decisions to migrate are therefore often influenced by factors inherent in places of abode as push factors and attractions of potentials and possibilities at destinations as pull factors. As a result of the loss of livelihoods due to desertification, people are forced into migration. As established by the UNCCD, “the cause and effect relationships between desertification and migration has only recently been recognised by different stakeholders ----- studies from Africa, including Egypt,



Morocco, Niger, Mali and Burkina Faso indicate that land degradation and desertification contribute to human mobility (UNCCD, undated: 1-2).

The migration is to other settlements – towns, cities and villages. In the villages, in pursuance of livelihood modes, the migrants combine with the existing population to increase pressures on land and its resources; others move to marginal lands for agriculture and grazing (Adams, 2001:177). The pressures are in the form of primary production activities on marginal land and harvest of forest resources for household use. In these villages, the lands easily come under desertification process over a short time. The end result is that more land, hitherto productive and marginal, are added to unproductive desert lands annually. These are similar to the pressures and activities that facilitate increased desertification at the places of origin.

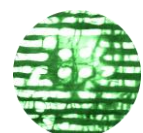
In the towns and cities, the migration of the low income, unskilled or semi-skilled and primary-production-skilled-population and to worsen the living conditions by putting pressures on limited opportunities, socio-economic and physical infrastructure. In the towns and cities, primary production livelihood modes organisation is a far dream for the migrants. The only open survival livelihood strategy that can be pursued or that are available and that can be explored depends on the ability and capacity of individuals to exploit urban opportunities. It should be noted that urban livelihood modes demands definite skills and resources.

Furthermore, it should be noted that the people have been forced to migrate due to poverty and food insecurity occasioned by environmental degradation. The degradation has led to loss of opportunities and income, yet the migrants are not equipped with requisite skills to exploit urban opportunities and possibilities. Due to these incapacities, the migrants tend to eke out a living in the low income strata of small scale economic activities of towns and cities while others organise livelihood around urban agriculture.

To have this population or category of persons in the towns and cities gives validity to the idea that rural to urban migration of the low skilled persons increases urban poverty. As asserted, “the links between environmental degradation, poverty and development are seen most clearly in the case of arid land desertification” (Adams, 2001:177) when such

impoverished people move to the city, the only consequence is consolidation of urban poverty as the migrants cannot really be employed (Afolabi, 2007: 9 – 10) or fitted in the urban economy. Yet, rural to urban migration remains a principal component of urban population growth. By the migrations, the people are increasingly exposed to economic insecurity and poor living conditions.

THE MIGRANT AND URBAN CHALLENGES



When the migrants enter the towns and cities, they enter with their needs, aspirations that subsequently translate to demands for space, utilities, services and facilities for the attainment and promotion of livelihood goals. These demands must be met by individuals even outside urban development plan provisions. Ability or inability to meet these needs define the future state of towns and cities in Africa with respect to liveability and functionality.

The demand for employment, housing, transport among several others by the migrant population becomes a major challenge for future urban development. If these are not well managed, the meeting of these needs of the migrants has capacity of rendering the towns and cities disaster prone areas. Indeed, the migration of this socio-economic population group to towns and cities increase the disaster vulnerability of the cities as “large contingent of low income migrants (have to settle) on the poorest most vulnerable land in cheap, dilapidated and overcrowded houses constructed on land subject to floods and landside” (Adebimpe, 2011:98). In urban areas the migrants are the petty commodity producers and sellers they are the operators of small scale economic activities that crowd pavements and public alleys that virtually offend urban land use development rules and regulations. The migrants constitute a challenge to urban development management in many respects.

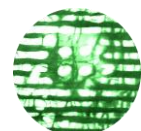
URBAN DEVELOPMENT AND CONSEQUENCIES OF DESERTIFICATION

Desertification or rural people impoverishment due to desert encroachment has far reaching challenges for urban development management that cannot be ignored. To contain the consequences of desertification on urban areas for a sustainable urban development, it is pertinent to constantly reflect the needs and demands of this socio-economic group of migrants in urban development and management processes.

Desertification policies have basically focussed on issues of combating and mitigating the effects of desertification where it occurs. Nigeria, for instance has several policy documents to guide the activities for the mitigation and combating of desert encroachment and its effects on the people. Yet, desertification at the frontline states remains a major source of worries in physical and human development circles. Thus, the link between desertification and its consequences on one hand and urban development and management on the other, should be

of great worry to physical development professionals in Africa. For Africa, urban development in the sense of allocation and construction of physical space for human activities and the development of urban socio-economic facilities and utilities are yet to come to terms with the needs and demands of the impoverished that migrate to the towns and cities due to increasing life threatening situations in the areas of desert encroachment.

Several policies and projects have emanated from the discourse of desertification. Such documents as the National Action Programme to Combat Desertification and Mitigate the





Effects of Drought (200), National Drought and Desertification Policy (2007) and the National Preparedness Plan missed out on the link between desertification, population movement and urban development. To illustrate this, the profile of Nigeria to the 2002 Johannesburg Earth Summit covered human settlement in desertification zones, environment and decision making, combating deforestation, managing fragile ecosystems, agriculture and rural development and conservation and bio-diversity. What happens to towns and cities in countries that experience desertification remain a neglected area.

Rural to urban migration is a major drive of urban demographic growth. Migrants from rural areas often move to state and federal capital towns and cities (Afolobi, 2007). The influx of low skilled population to the towns and cities lays basis for the formation of economically unproductive but dependent individuals in the towns and cities. The spatial expression of this is the formation of commercial and residential slums that apparently present images of villages in urban areas in terms of outlook, livelihood modes and activities. In this sense, urban development is associated with informality, improperly acquired, unplanned and poorly developed land areas. It is the responsibility of development planners to take cognisance of this trend for the purpose of taking steps to mitigate the socio-spatial adverse effects of migration of poverty, rural values and attitudes to towns and cities. A starting point is the creation of an all inclusive city in which 'all residents (are provided) with adequate housing, decent services, facilities, amenities, equals opportunities for business and access to employment (UN-Habitat, 2008:56) through land use planning, allocation and management.

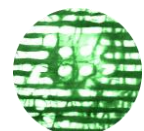
MANAGING THE EFFECTS OF CLIMATE CHANGE

Climate change distorts the environment, increases environmental risks and disasters, worsens developmental problems of rural and urban communities in addition to growing food security and poverty particularly in the arid and dry lands in Africa. The climate change has over time eroded the social and environmental resilience and reduced the capacity of the people to cope with environmental disasters. With the growing concern for the consequences of climate change, it has become pertinent to develop structures to mitigate and possibly checkmate the progress of climate change and its consequences. While countries like Ghana have created the structures by implementing the Netherlands Assisted Climate Adaptation Programme

(Ogbo, Ndubuisi and Okpere, 2013:230), Countries like Nigeria have not developed the capacity to manage climate change and its consequences.

Climate change and its effects on all aspects human life in urban and rural remain a challenge to governments. In fact, with respect to Nigeria,

Climate change is surely one phenomenon that has tested the Nigerian Government and so far, the government has failed the test looking at the low level preparedness of the country in





tackling the imminent dangers of climate change. Apart from various workshops and seminars to pay lip services to the many problems of climate change poses to the nation, some experts have said Nigeria still has no structure or any coordinated mechanism in place to tackle the challenge of climate change in the country (Ogbo, Ndubuisi and Okpere, 2013:231).

All these notwithstanding, various efforts had been and are made to tackle the challenges of desertification and land degradation. Many of such efforts were expensive and futile. As asserted, “many actions to combat desertification had been costly, focused on technical interventions, --- and were rarely sustained beyond the initial donor input stage” (Potter, Binns, Elliott and Smith, 2004: 250). This must have informed the setting up of a programme, the great green wall initiative, supported by the European Union, Food and Agricultural Organisation and Global Mechanism, in which the community is a major driver. In 2007, the Great Green Wall for the Sahara and the Sahel Initiative was endorsed by African Heads of State and Governments to resolve the effects of desertification and land degradation by providing support to countries that are affected by the phenomenon such that such countries can use and manage forest, range land and other resources, mitigate and adapt to the consequences of climate change and improve food security and livelihoods in affected communities.

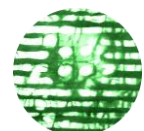
The Great Green Wall (GGW) represents a concerted and coherent attempt to combat land degradation through the promotion of sustainable land management (SLM) strategies that will result in stabilized and improved ecological integrity and better rural living standards in the affected countries. Accordingly, in the GGWSSI document it is asserted that:

The overall goal of the Great Green Wall Initiative is to strengthen the resilience of the region’s people and natural systems with sound eco-system’s management, sustainable development of land resources, the protection of rural heritage and the improvement of living conditions of the local people.

It provides a multi-country and donor partnership to support the development of national level Action Plans, which clearly outline priority areas for programme interventions and promote

coordinated investments among donors and national Governments to implement more comprehensive and integrated approaches to environmental hazards and risks in the sub region.

The target of the GGW initiative is to bring together relevant actors and stakeholders within a framework of a noble cause to fighting desertification and environmental degradation through undertaking a series of inter-related and coordinated activities, actions and outcomes. The GGW has a number of specific targets principal among which are to enhance environmental sustainability, control land degradation, promote integrated natural resources management, conserve biological diversity, strengthen infrastructure, and contribute to poverty reduction.



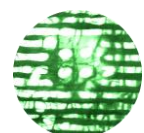
The point here is that when the GGW initiative is fully implemented in the defined belt, threats to lives and livelihoods will be minimised while population movements to villages, towns and cities that tend to compound issues of sustainable rural and urban development with increased liveability and functionality will come under control.

As efforts are made to revive the land use and land cover in the dry land and arid areas, the social consequences of desertification remain worrisome. A major challenge that results from desertification induced migration to towns and cities is the formation and development of inappropriately acquired plots of land. Often, the developments of such land offend all aspects of urban planning, development procedures, standards and principles and therefore constitute islands of spatial disorganisation in the towns and cities. Planning, development and management of the cities must therefore strategise to provide for the needs of these migrants. The effort to make this provision is an opportunity to develop all inclusive towns and cities without sacrificing the goals and ideals of urban development and management. It is significant to work out and implement strategies for incorporating the needs of low skilled migrants in urban development process as a measure towards enhancing African urban future.

The strategic plan for urban development must for example necessarily guarantee urban housing for the poor on a massive scale. It is apparent that the low, medium and high density concept of housing development and delivery do not meet the needs and do not guarantee access of the urban poor to housing services. The concept is no longer a sufficient frame for the accommodation of urban poor in housing delivery in the towns and cities. The fact is that the low skill poor migrant has no capacity to access urban housing even in the high density zones. In the same manner they cannot access economic space in the sense of capacity to explore and exploit economic opportunities and a place to earn a living in the urban area. This exclusion without alternatives provides explanations or rationale for the poor to set own types of housing, economy and environment that replicates rural technology and image in urban areas and the economic space that are created are of the semblance of village bazaar economic activities on the streets, pavements and alleys for the marketing of petty commodity products and services.

It is in this sense that urban development processes must ensure access of the urban poor to urban land for housing and other economic activities through the creation of space for the production and sale of petty commodity to free urban thoroughfare and public alleys of petty economic activities. The strategy and provision for access to land should gradually integrate the poor into the urban system and free them of cultural practices and attitudinal habits that are not in consonance with organised urban development and living.

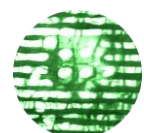
CONCLUSION





Apparently there is a nexus between climate change, desertification, general environmental degradation as well as implications for population movements, livelihood changes and complications for sustainable human settlement development in Africa. For a healthy economic growth and sustainable development, a two pronged approach of environmental conservation and restoration as inherent in the GGW initiative and the provision of physical and economic space for poor migrants to the cities through effective strategic planning is a requirement. For these measures to be effective, African states should not accept anything less the effective control of emission of GHGs that in the first instance caused climate change. The industrialised countries must be made put in place measures the continuously reduce the emission rather than any form of compensation to the African government and people.

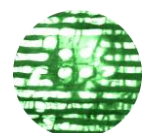
These measures are fundamental to effective tackling of the consequences of the overwhelming phenomenon called climate change in human settlements. When the rural settlements are made more productive and liveable through environmental restoration programmes and projects the multiplicity of urban challenges shall be minimised. Finally, the mitigation of urban the occurrence and effects of climate change will particularly enhance the functionality of the urban areas that are the engine rooms of economic growth and development.





REFERENCES

- Adams, W.M (2001): *Green Development: Environment and Sustainability in the Third World* 2nd Edition Routledge Taylor and Francis Group, London.
- Adebimpe, R. U. (2011): *Climate Change Related Disasters and Vulnerability: An Appraisal of Nigerian Policy Environment* Environmental Research Journal 5 (3) 97 -103.
- Akpata, T. C. (2010): Effects of Global Climate Change on Nigerian Agriculture: An Empirical Analysis Central Bank of Nigeria Journal of Applied Statistics, vol. 2 No. 1
- Amadi, D.C.A., Nwagboso, N. K., Kwaga B. T. And Akosim C (2011): *Human Coping Strategies to Desertification in Yobe State, Nigeria* Animal Research International 8 (3) 14 39 – 1444.
- Awodi, O. E. (2014): Socio-Economic Effects of Flooding in Lokoja, Kogi State Department of Urban and Regional Planning, Ahmadu Bello University, Final Year B. URP Dissertation
- Barrow, C. J. (1995): *Developing The Environment: Problems and Management* Longman, London.
- Buchanan, K M and Pugh J C (1969): *Land and People in Nigeria* University of London Press, London, UK
- Chauhan B S (2001): *Environmental Studies* University Science Press, Bangalore, India
Federal Ministry of Environment: *National Action Programmes to Combat Desertification* Abuja, 2001
- Federal Republic of Nigeria (2005): *Combating Desertification and Mitigating the Effects of Drought in Nigeria* The Revised National Report on the Implementation of the UN Convention to Combat Desertification in those countries Experiencing Serious Drought and/or Desertification, Particularly in Africa.
- Federal Republic of Nigeria (undated): Draft objective out strategies for Nigeria's Agenda 21 FEPA, Abuja.
- Gbahabo, T. P (2001): *Desertification and Rural Livelihoods: The case of Gursulu Village, Yobe State, Nigeria* Faculty of Humanities, University of Witswatersrand, Johannesburg





Hassan, B. (2013): Human Activities and Desertification and Challenges of Human Settlement Planning in Nigeria Proceedings of Annual Conference and General Meeting of The Nigerian Institute of Town Planners, Held at Women Development Centre, CBD, Abuja, FCT, 7th - 10th November, 2012

Husung, Sabine and Lieser, Peter G. (1196): Green Belt Frankfurt in Kiel, Roger, Wekerle, Gerda R. And Bell, David V. J. (eds.) Local Places in the Age of Global City Black Rose Books, London

Ogbo, A., Ndubuisi, E. L. and Okpere W. (2013): *Risk Management and Challenges of Climate Change in Nigeria* Journal of Human Ecology 41(3)

Oguntoyinbo, J. S (1981) Aspects of Urban Micro Climate: The Case of Ibadan in Sada, P.O. and Oguntoyinbo J. S. (eds): Urbanisation Process and Problems in Nigeria, Ibadan University Press, Ibadan

Olawumi, A. 2009): *Environmental Considerations In Nigerian Agricultural Policies, Strategies and Programmes* International Food Policies Research Institute NSSP Report 4
Potter R B, Binns T, Elliott J A and Smith D (2004): *Geographies of Development Second Edition* Pearson Prentice Hall London, United Kingdom

Premium Times: *Nigeria Approves N10bn for Great Wall Project* www.premiumtimesng.com 28/05/2014, 08:59

Salami, A. T. (2014): Climate Change Mitigation and Adaptation Options: The Nigeria Experience http://ncee.org.ng/centre-archives/workshops-a-seminars/doc_download/34-climate-change-miti Accessed on August 25, 2014

Schuz, N. S. And Kunzewicz, Z. W. (1997): *Water, Drought and Desertification in Africa Sustainability of Water Resources Under Increasing Uncertainty* Proceedings of Rabat Symposium SI, April 1997,/AHS Publ. No. 240.

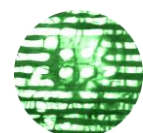
The African Wall: *The Great Green Wall for the Sahara and the Sahel Initiative* <http://www.fao.org/docrep/016/ap603e/ap603e.pdf> 28/05/2014, 08:57

The family Early Warning Systems Network (2007): Preliminary Livelihoods Zoning: Northern Nigeria, USAID

The Great Green Wall Initiative: Global Environment Facility www.gef.org 28/05/2014, 08:55

Udo, R K (1970): *Geographical Regions of Nigeria* Heinemann Educational Books Ltd, London UK

UN Habitat (2008):*The State World's Cities 2010/2011: Bridging the Urban Divide* EarthScan, London





UNCCD (Undated): *Thematic Fact Sheet Series* No 3

UN-Habitat (2011): *Cities and Climate Change – Global Report on Human Settlements, 2011*
UN HSP, Earthscan, London

UNITED Nations (2002): *NIGERIA – Country Profile* Johannesburg Summit, 2002

World Meteorological Organisation (2005): *Climate Change and Land Degradation* COMO-
No 98

World Meteorological Organisation (undated) *Climate Change and Desertification* Geneva

