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Spiess, Andrea

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# **THE ROLE OF ENVIRONMENTAL DEGRADATION IN POPULATION DISPLACEMENT AND CONFLICT IN THE DRYLANDS OF SUB- SAHARAN AFRICA (SSA) WITH SPECIAL REFERENCE TO NORTHERN NIGERIA**

Andrea Spiess  
University of Hamburg  
Economics and Policy  
Center for International Relations  
spiess@environmental-research.de

At present, major parts of Sub-Saharan Africa are seriously threatened by progressive desertification and in addition continue to face some of the world's greatest development challenges. More than 200 million people are undernourished, thousands of displaced persons are accommodated in refugee camps and the quality of essential resources such as water, grazing- and arable land are seriously under threat. While income in these regions relies mainly on natural resources, desertification, caused by anthropogenic activities and enhanced by climatic changes, has massive and negative social, environmental and economic impacts. Once productive drylands are degraded, livelihoods are no longer secure, resources become overexploited, social tension increases, traditional cultural systems collapse and armed conflicts are increasingly driven by resource availability. In the next decades, population growth, rising average resource demand, and persistent inequalities in resource access ensure that scarcities will affect many environmentally sensitive regions with a severity, speed, and scale unprecedented in history. Approximately 60 million people are expected to eventually move from the desertified regions in Sub-Saharan Africa towards North Africa and Europe within the next 20 years. Long term studies conducted on West Africa on the other hand project a constant migratory flow from Sahelian regions to the coastal cities, such as Lagos and Abidjan, whose population is expected to grow 3.5 times the numbers in 1997 to 271 million in 2020.

According to the "Natural Heritage Institute" there is a strong correlation between migration, poverty and environmental degradation. The natural resources in and around the cities and refugee camps, in which human beings have settled, have already been over utilized. In addition, difficult living conditions as well as the absence of cultural identity undermine social stability. Research presented at that time stated that alone in 1994 approximately half of the 100 armed conflicts had environmental causal factors characteristic of drylands. Consistent with the study, violence has been induced by mass migration of people, who have

had no choice but to leave their lands in search of other livelihoods once their land become degraded and lost productivity, exposing them to the risk of conflicts with the established populations in the new lands. This proves that the environmental push element for migrations triggered by environmental scarcity is hidden behind ethnic or socio economic considerations.

A considerable amount of empirical work on the relationship between environmental degradation and likely violent conflicts indicates that countries in this particular region seem to be more vulnerable. Nevertheless, even if it may be relatively easy to identify the parallel occurrence of environmental degradation and human insecurity, yet assuming a causal link could be misleading and dangerous. In reality tension and armed conflicts take place in response to a combination of stimuli: environmental, economic, social and political. As a consequence, separating environmental processes from the structures within which they are embedded is both difficult and a distortion of reality.

Two interconnected approaches that are most applicable to the situation in Sub-Saharan Africa summarize the basic present research into environment and conflict.

Among the main findings of the Toronto school of thought lead by Homer-Dixon is that resource degradation induced by complex causal linkages of indirect social and environmental processes could lead to political instability under specific conditions. According to them environmental degradation plays a part mainly by generating intermediate social effects, such as poverty and migrations, that analysts often interpret as conflict's immediate causes. In other words resource depletion as a result of environmental change and population growth is only a component of a much more complex situation where social factors intersect with natural phenomena.

The emphasizes here is on situations where environmental degradation encourages powerful elites within a society to shift resource distribution in their favor and therefore operate to extend control over productive resources, in a process of “resource capture” and consequently displace peasants and subsistence farmers into “ecological marginalization.”

This unequal resource access may result in the scenario that some ethnic groups will not be able to sustain their basic existence any longer. Combined with the exponential population growth witnessed in Africa, this may yet again generate large, destabilizing and long-term migrations of the poorest groups within these societies. Thus they move to ecologically extremely sensitive areas such as floodplains and areas at risk of desertification. High

population densities in these regions, combined with cultural constraints to development, inappropriate agricultural practices such as bush burning and land clearing, absence of knowledge or political willingness to protect the local ecosystem, cause severe environmental scarcity and chronic poverty and in return increase the potential for social instability. In addition population movements aggravate tensions along ethnic, racial, and religious lines; increase economic disparities; and debilitate political and social institutions weak institutions and subsequently often appear to be the main causes of violence.

Concurring with the Toronto theses Lonergan emphasizes in his detailed report on "Environmental Degradation and Population Displacement" within the scope of the Global Environmental Change and Human Security Project (GECHS)" of the "International Human Dimensions Programme on Global Environmental Change" that migration is certainly not always the desirable option when it comes to a degraded environment, since it will cause additional economic, social, political and additional environmental stress in the host societies.

"Despite the ancient Chinese proverb that states "Of thirty ways to escape danger, running away is the best," it is not necessarily the case that movement always reduces environmental, or other, stress. In reality, movement may lead to the substitution of one set of stresses (environmental) for another (economic, social, political and/or further environmental stresses)."

According to this school of thought the ability of states to respond to such processes play a crucial role to determine and understand where social collapse and violence is most likely to take place. The phenomenon of "failed states" though is nothing new when it comes to the African continent. While some developing societies in other parts of the world have managed to adjust to environmental scarcities, countries in SSA have not and will most likely not adapt to resource degradation. These countries lack the key social institutions, such as research facilities, efficient markets, competent government bureaucracies, and uncorrupt legal mechanisms that are essential prerequisites for an ample supply of the social and technical ingenuity that produces solutions.

In Thomas Homer-Dixon's research declining state capacity is in some poor countries related in several ways to increasing environmental scarcity. The multiple effects of environmental degradation increase the demands on the state, trim down social trust and useful ethnic interaction, and above all cause a general reduction in economic activity which depresses state

revenue and fiscal flexibility. Nevertheless scarcity often engenders competition among powerful groups that in a vicious cycle will block institutional reforms. These processes in turn weaken the administrative capacity and legitimacy of the state. If social and economic adaptation fails, environmental scarcity constrains economic productivity, triggers "social segmentation" and contributes to migrations, often to urban centers. Declining or stagnant economic welfare may generate deprivation conflicts, such as rural insurgencies and urban riots or can even result in governmental takeovers.

He suggests that environmental conflicts are mostly internal to particular states and unlikely to cause inter-state conflict in the immediate future. Although it emphasizes that the indirect consequences of social friction as a consequence of large-scale migration, in part across national boundaries, have in some cases caused international tensions.

The main argument here is that those very countries, which are most dependent on renewable resources and could be therefore most motivated to seize resources from neighbors, are generally also poverty-stricken. Fortunately this lessens their capability for aggression. However according to Homer-Dixon the natural resource most likely to stimulate interstate war would be water. Research in this respect shows that conflict and turmoil related to water is more often internal than international; these conflicts usually result from irresponsible major irrigation schemes and dams that relocate large numbers of people. As people resist displacement, this may lead to escalating tensions.

The second portrayed approach is the outcome of the European Environment and Conflicts Project (ENCOP) in the 1990s led by Günther Bächler and linked concerns with environment more directly into concerns with development and social change in the southern hemisphere. By conducting a number of distinct case studies, the project concluded that conflict was related to environmental change in many ways, but that conflict was likely to be related to the disruptions of modernity. Contrary to the Toronto school, Bächler suggested that violence was likely to occur in more remote areas, such as mountainous regions and grasslands where environmental stresses occur in places that already have political tensions and discriminatory access to resources. While much of the research on human security in connection to resource scarcity focuses on the question of environmental degradation as a factor in causing conflict, Bächler emphasizes on the anthropogenic factors and the intensive transformation of the natural environment by human beings should certainly be considered in respect to the current processes.

Here the concept of "environmental discrimination" is used to emphasize explicit in the case of Africa the economic marginalization of rural populations and refers directly to Vandana Shiva's term of "maldevelopment". Bächlers conceptual considerations suggest clearly that conflict is a result of the disruptions of development and transformation rather than a result of solely indigenous causes. Even thou according to him they manifest themselves as political, social, economic, ethnic, religious or territorial conflicts, or conflicts over resources or national interests, or any other type of conflict, they are in reality traditional conflicts induced by environmental degradation.

Northern Nigeria serves as a good example when it comes to the relationship between desertification and security. Mainly induced by population pressure, this region has been experiencing progressive land degradation characterized by extensive desertification. Even if the correlation between demographic factors and economic growth is still being studied by economist, the devastating consequences of progressive population stress in this most densely populated West African country has been well documented in the past. Africa's most populous nation with currently roughly 140 million inhabitants divided into 250 diverse ethnic groups already occupies the 9th position of the most populated countries in the world. Future projections are even more alarming since population will most likely more than double within the next 23 years and by 2050 there will be an estimated number of 338 million people living in this already extremely environmentally degraded and crisis threatened country. Currently, the average growth rate lies depending on the source between 2.45 and 4 percent. Similarly to many other African countries, Nigeria shows the typical problem and conflict spheres that are characteristic for the continent: poverty, mismanagement, corruption, cleptocracy, human right violations, violence and terror.

Even thou desertification is by far the most pressing environmental problem in the northern parts of the country, there have been no signs of serious indigenous political or social commitment to this issue. In the absence of any concrete data since 1991, were a degraded area of about 373.621 km<sup>2</sup> was estimated, it is very difficult to make any assumptions about the current situation. Generally it can be assumed that more than one third of the country is severely affected by desertification and it was estimated by a World Bank study conducted in 1991 that the total cost of environmental degradation in Nigeria would amount to about US\$ 5.1 billion per annum out of which, land degradation alone accounts for about 73%. It has been estimated by international scientists that the country is currently loosing 3510 km<sup>2</sup> of its

landmass to desert-like conditions annually, and such conditions are estimated to be advancing southwards at the rate of about 0.6 km per year.

Freely accessible satellite imagery from NASA on the Internet shows the true reality in the complete absence of remedial and mitigative measures of the alarming situation around Lake Chad. In their paper titled "Human and Natural Impacts on the Water Resources of the Lake Chad Basin," published in the American Geophysical Union's Journal of Geophysical Research, the authors Coe and Foley used an integrated biosphere model (IBIS) with long time-series climate data to show that due to progressive desertification and irresponsible irrigation practices the lake is now about one-twentieth the size it was in the mid 1960s. While the lake used to expand in recent decades up to 25,900 km<sup>2</sup>, it has now dropped water levels far below the average dry season level of 10,000 km<sup>2</sup> to only 1,350 km<sup>2</sup>. Yet the lake is not only the most important water source for the adjacent communities, but is shared by four dependent countries: Chad, Cameroon, Nigeria and Niger. Closer observations have shown that the northern parts of the lake have dried up completely, while the western part is covered with drifting sands.

The increasing pressure on the limited natural resources of the desertification-prone zone, arising from internal migratory patterns as well as the influx of migrants from neighboring countries, results in overgrazing and continuous overexploitation of marginal ecosystems. While settlements and infrastructure are being buried under shifting sand dunes in the northern parts of the country, the pressure of migrating human and livestock populations from these areas are being absorbed by pressure point buffer states, where violence over land rights is on the increase. So even these communal clashes in Northern Nigeria by the media often misinterpreted or misrepresented as ethnic and religious clashes are actually a struggle over the control of natural resources or sometimes even a fight to sustain people's livelihood. These resource inequities intertwined with population growth, institutional constraints, and economic insufficiency lead to low agricultural productivity even during years of normal precipitation.

This phenomenon was in fact realized by the Nigerian Environmental Protection Agency (FEPA) in 1995 and the usual "purely rhetoric approach" was given:

"As the land is rendered unproductive or totally destroyed by erosion or desertification the people move on to new settlements and start the same process all over. They have no

alternative because it is a matter of survival for them. This is not sustainable development because sooner or later all the available land will be exhausted and the people or their children will become environmental refugees."

Irresponsible and inappropriate government policy undermines here human security by reducing access to, and the quality of, the already scarce natural resources that are important to sustain existence. This situation reflects in the view of the data from the "Norwegian Refugee Council" in the scope of the Global IDP Project. Since the so called "democracy" was established in 1999, more than 10,000 people have been killed and some 800,000 internally displaced by outbreaks of communal violence across the country.

Many observers in Nigeria believe that even here the conflict is always and everywhere about access to scarce resources. The roots of the violence across much of the country are certainly not religious or cultural. For example the introduction of Islamic Sharia law in some northern states has caused tensions, but when members of different denominations have clashed this has usually been caused by other factors – such as pressure on land or unequal access to social services. However, the polarization that follows is often along religious lines, and the media tends to characterize the tensions as a "religious war."

Equivalent dynamics are often observed with regard to "ethnic conflicts". One underlying catalyst for these conflicts is often the division between "indigenes" and "settlers" that exists not only all over Nigeria but can be transferred to almost any African country. This relates to a difference between those who can claim ancestral roots to an area versus those who at some point have migrated to the area. Discrimination between these different ethnic groups with regard to access to employment, political positions and public services has in many cases led to communal violence.

In recent years, violent conflicts have increased significantly in all the regions in Northern Nigeria. Migration and severe population pressure triggered a number of conflicts about unclear land rights and local border disputes, besides generation conflicts, youth bulges, as well as uncontrolled urbanization and in this respect related crime and the establishment of militia groups. Serious crime, such as international drug trafficking, extortion, etc. grew to nearly epidemic proportions, particularly in urbanized areas characterized by rapid growth and change, by stark economic inequality and deprivation, by social disorganization, and by inadequate government service and law enforcement capabilities.



While conflicts are created and strengthened by politicians both at a local and national level who seek to gain advantage from social division, once triggered the violence seems to have its own momentum. Consistent with a BBC report in May 2004, the failure of the government to provide adequate education for a vast majority of the population has left behind a frustrated and angry underclass of largely urban, unemployed youths. It is among this disempowered segment of society that ambitious politicians and religious leaders look for support or new recruits.

"It all travels down this path in the form of contracts handed out to political favorites. ... In fact, almost all economic activity in the country works on this principle - the awarding of contracts. It makes those with access to the source of power rich, and those who do not have power want it all the more."

These political changes at state and regional level could be seen as indicators for socio-economic effects, due to inter alia desertification or the increasing scarcity of resources. At regional and local level an increased number of ethnic conflicts due to disregard of traditional laws among different ethnic groups regarding the usage of pasture, soil and water can be observed. Nomadic herdsmen for example encroach as a result of their spatial mobility into the territory of different tribes and cause conflicts or more correctly in the African situation: the extreme expansion of the settled population has induced violent tensions, since they encroach into the traditional grazing grounds of the herders.

Traditional African pastoralists, farmers and riparian societies have supported sizeable populations under often severe environmental stress in the past and lived side by side with a certain degree of interdependency. Nonetheless, this equilibrium of cohabitation is increasingly unstable. The exclusion of pastoralists from pastures with higher agronomic potential by farmers and blocking of traditional transhumance routes lead to significant disruption of the annual transhumance cycle increasing the ecological and economic vulnerability of pastoral systems in African drylands.

The livelihoods of several million pastoralists and livestock owners throughout the drylands of Sub-Saharan Africa will be threatened, as farmland expands and certain key resources become targeted for agrarian development. Especially countries promoting agricultural development through irrigation programs affect indigenous tenure-systems governing pastoral

land by modifying the resource base and institutional arrangements on which they were built. In this context large-scale irrigation systems in Nigeria went hand in hand with the expropriation of autochthonous, jointly administered pasture land and its nationalization, which was followed by the allocation of usage rights over irrigated areas to settlers in the form of formal leasehold. In this sense the "Land Use Act" that was introduced 1978 does not contain any regulations, to protect the rights of the nomads and assure them access to grazing land or the demarcation of cattle routes, but fostered conditions that will further marginalize the pastoral societies and ease industrial agricultural development. Traditional "Cattle Routes", serving as livestock corridors for nomadic movements, were obstructed, water points for animals were converted into irrigation sources, and exchange relations based on reciprocal property rights between agriculturalists and pastoralists were reallocated in favor of agriculturalists.

Even where the monopoly of tribal-land distribution was promised to the leaders of pastoral groups, it was simple to neutralize their political opposition by granting parts of the redistributed land.

Parts of central and northeastern Nigeria have recorded many violent disputes between indigenous farming communities and nomads in recent years, as increasing desertification forces grazers southward into densely populated areas. But even in the Lake Chad basin transhumant pastoralists from Niger, Nigeria and Cameroon find their traditional grazing land used by settled farmers and encounter new barriers on their transhumance route. Thus, tensions and unsolved conflicts between different user interests arose due to crop damage.

Another serious source for potential conflict could be the emerging water scarcity due to increased aridity in the region. Current demographic trends project that the number of people that will suffer from chronic water scarcity will increase drastically. While Nigeria in 2001 was still having more than 1841m<sup>3</sup> internal renewable freshwater reserves per capita, the World Resources Institute assumes that by 2025 this will fall below the required of 1000 m<sup>3</sup>. Numerous conflicts especially between Chad and Nigeria have circulated around water and land rights.

The Heidelberg Institute on International Conflict Research (HIK) rates the situation in Nigeria as a "severe crisis". Some researchers even are of the opinion that the situation in Nigeria might escalate into genocide, witnessed in Rwanda.

Environmental degradation can contribute not only to diffuse but persistent violence such as ethnic clashes and regional interstate conflicts. The projections of experts indicate that

incidences of such violence will probably increase substantially in the future in Sub-Saharan Africa as environmental scarcities due to exponential population pressure will exacerbate and this development may have serious repercussions on security interests of the international community.

Civil violence within states can not only affect external trade relations and cause refugee flows, but can produce humanitarian disasters that will yet again call upon the military and financial resources of developed countries and international organizations. Finally, states destabilized by environmental stress may fragment as they become enfeebled and peripheral regions are seized by questionable authorities, such as "warlords". On the other hand governments might avoid fragmentation by becoming more restrictive, intolerant of opposition, and in many African cases militarized. Such regimes, however, have a tendency to abuse human rights and try to divert attention from domestic grievances by threatening neighboring states.

Nevertheless the crucial argument about ecology is that it focuses on humanity within a biosphere, interconnected across State boundaries. Therefore actions in one place are undoubtedly linked to consequences elsewhere. Innovative policies to minimize the ecological impact of unsustainable consumption patterns, in other words the reduction of direct disruptions of rural ecologies, due to resource extraction, and indirect disturbances due to pollution and atmospheric change, should be at the heart of a sustainable development policy that simultaneously tries to enhance human security.

When looking at the situation Nigeria in particular now characterized by disparity, frustration, hunger and violence. Many experts believe that African cities are not only a fertile breeding ground for communal conflict, but the perfect environment where terrorism, fanaticisms and fundamentalism will certainly thrive best.

The relationship between environmental scarcity and violence is complex. Scarcity interacts with such factors as the character of the economic system, levels of education, ethnic cleavages, class divisions, technological and infrastructural capacity, and the legitimacy of the political regime. These factors, varying according to context, determine if environmental scarcity will produce harmful intermediate social effects, such as poverty and migrations. Contextual factors also influence the ultimate potential for instability or violence in a society.

In some cases this may be connected to state failure and political violence, not least where insurgencies feed on grievances related to injustice and inequity in developing States.