

**UNDERSTANDING MIGRATION CHOICES:  
THE UNCCD AS A MECHANISM FOR DEVELOPING COPING STRATEGIES**  
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**COMPRENDIENDO LAS DINÁMICAS MIGRATORIAS: LA CNULD COMO  
MECANISMO PARA DESARROLLAR ESTRATEGIAS DE ACOPLAMIENTO**

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**Resumen**

Las alteraciones en el medioambiente se reconocen de forma generalizada como un factor cada vez más importante de la emigración. Pueden ser tanto la causa como el efecto de los movimientos de población. Cuando la población ya no puede garantizarse una vida digna en su tierra de origen y se ve forzada a huir sin tener alternativa, estas alteraciones son la causa de la emigración. Por el contrario, cuando la degradación medioambiental es el resultado de un movimiento masivo de personas, tanto en las zonas de destino como de origen, hablamos de alteraciones como efecto de la emigración. Las alteraciones medioambientales pueden adoptar muchas formas: de inicio repentino o progresivo, provocadas por causas naturales o por el hombre, por uno o varios factores. Si bien es cierto que estas alteraciones medioambientales pueden ser muy diversas, tienen como común denominador el efecto que provocan en las poblaciones más vulnerables, que no se pueden adaptar al medio cambiante.

La relación entre tales alteraciones y la emigración no siempre es directa y puede ser difícil de identificar, puesto que intervienen igualmente factores socio-económicos. La emigración puede ser el resultado de un cúmulo de cambios, que en ocasiones se denomina “migración forzada”, la cual puede ser de hecho una estrategia de acoplamiento, un mecanismo rutinario para afrontar la escasez de recursos. En el caso de la desertificación, la emigración puede ser tanto una elección forzada como una estrategia migratoria. Así mismo, puede tratarse de una ayuda para aliviar la carga demográfica y, consecuentemente, un apoyo en la lucha contra la desertificación. Las migraciones provocadas por la sequía y la desertificación comparten características con los desplazamientos masivos provocados por inundaciones o tsunamis, en concreto, la ausencia de un marco legislativo o un sistema de protección.

Aún queda mucho por comprender de la importante y compleja relación existente entre la degradación medioambiental y las migraciones. La desertificación es un claro ejemplo de cómo factores medioambientales pueden entremezclarse con factores económicos y políticos. Es necesario reconocer que la emigración medioambiental es el precio humano de la desertificación, un efecto externo negativo de este proceso. Las investigaciones sobre patrones históricos de emigración desde los países del Magreb sustentan la idea de que es necesario un marco de desarrollo humano de cooperación que reduzca el índice de desertificación. Deberían llevarse a cabo más estudios e investigaciones sobre la desertificación, como causa y efecto de los desplazamientos y las migraciones transfronterizas, a través de programas que faciliten el intercambio de datos técnicos y científicos y el control constante de la aplicación de la Convención de las Naciones Unidas de Lucha contra la Desertificación (CLD). La CLD es el único instrumento jurídicamente vinculante a disposición de la comunidad internacional en el campo de la desertificación, que, consecuentemente, ofrece el marco que permite estudios comparativos entre las regiones afectadas con diferentes limitaciones culturales y económicas. En este sentido, ofrece una perspectiva histórica y fomenta iniciativas de formación y educación medioambiental en las regiones afectadas, con vistas a desarrollar soluciones exitosas para los problemas migratorios.

Durante el *Año Internacional de los Desiertos y la Desertificación 2006*, en diversos congresos importantes se ha llamado la atención sobre los factores vitales de la migración forzada, entre ellos la tasa de desempleo extremadamente elevada entre los jóvenes de África y los efectos de la emigración en las mujeres, por ejemplo, el aumento de la carga laboral o la amenaza a la seguridad alimentaria. El enfoque ascendente que ha adoptado la CLD, desde la toma de decisiones al proceso de puesta en práctica, ha mejorado el perfil y reforzado las capacidades de aquellos a los que la desertificación afecta directamente. En este marco en concreto, se debería intentar crear asociaciones entre los órganos de Naciones Unidas y la comunidad académica para promover la investigación sobre los movimientos de población provocados por la desertificación.

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## COMPRENDRE LES DYNAMIQUES MIGRATOIRES: LA CNULD COMME MECANISME POUR DEVELOPPER DES STRATEGIES D'ADAPTATION

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### Résumé

Les bouleversements écologiques constituent généralement un facteur de plus en plus important dans le phénomène de migration. Ils peuvent être à la fois une cause et une conséquence des mouvements de population. Il s'agit d'une cause lorsque les individus ne peuvent plus mener une existence décente dans leur lieu d'origine et sont obligés de fuir, n'ayant pas d'autre alternative. Il s'agit d'une conséquence lorsque la dégradation écologique résulte d'un mouvement massif de population, tant sur les terres de départ que d'accueil. Les bouleversements écologiques peuvent prendre des formes diverses: brutaux ou lents, naturels ou résultant de l'action de l'homme, dus à un seul changement ou à une succession de transformations. Alors que ces bouleversements écologiques se révèlent être d'une grande variété, ils ont en commun d'affecter les populations les plus vulnérables et qui ne sont pas en mesure de s'adapter à un environnement changeant.

La relation entre bouleversement et migration n'est pas toujours directe, et peut s'avérer difficile à identifier, dans la mesure où elle se mélange avec des facteurs socioéconomiques. Le phénomène de migration peut être le fait d'un cumul de transformations, parfois désigné comme 'migration forcée' qui peut s'avérer être une stratégie d'adaptation, un mécanisme permettant de faire face à la raréfaction des ressources. Dans le cas de la désertification, la migration peut aussi bien être un choix forcé qu'une stratégie migratoire. Il peut également s'agir d'un soulagement nécessaire à l'allègement du poids démographique, et peut ainsi contribuer à lutter contre la désertification. Les migrations causées par la sécheresse ou la désertification partagent des caractéristiques communes avec des déplacements brutaux lors d'inondations ou de tsunamis, en particulier en l'absence de cadre de protection légal ou organisé ;

La relation entre dégradation écologique et migration est importante, complexe, et encore mal comprise. La désertification constitue un exemple de facteurs écologiques mêlés à d'autres facteurs d'ordre politique et économique. La migration écologique doit être reconnue comme le coût humain de la désertification, comme une externalité négative du phénomène. La recherche portant sur les caractères historiques de la migration issue des pays du Maghreb fait ressortir le besoin d'un cadre pour le développement en matière de coopération humaine qui réduirait l'ampleur du phénomène de désertification. Des recherches et des études complémentaires sur la désertification à la fois considérée comme cause et conséquence des déplacements migratoires doivent se poursuivre à travers des programmes qui faciliteraient l'échange de données techniques et scientifiques et assureraient un contrôle constant de la bonne mise en place de la Convention des Nations Unies pour Lutter contre la Désertification. Unique instrument ayant valeur légale mis à la disposition de la communauté internationale en matière de désertification, la CNULD est en mesure de fournir le cadre habitant des études comparatives entre les régions touchées par le phénomène avec des contraintes culturelles et économiques différentes, en établissant une perspective historique et en encourageant l'éducation en matière d'écologie et les initiatives de formation dans les régions touchées, afin de mettre en place des solutions efficaces qui puissent résoudre les problèmes de migration.

Lors de l'Année internationale des déserts de la désertification en 2006, de nombreuses conférences ont attiré l'attention sur les facteurs de migration forcée cruciaux, autrement dit un taux extrêmement élevé de chômage parmi les jeunes en Afrique et l'impact du phénomène migratoire sur les femmes s'illustrant par l'augmentation de la charge de travail et la menace pesant sur le seuil de sécurité alimentaire. L'approche hiérarchique adoptée par la CNULD, allant de la prise de décision jusqu'au processus de mise en place de programmes a défini le profil et renforcé les capacités de la population directement touchée par la désertification. C'est dans ce contexte précis que des partenariats devraient être établis avec les organismes des Nations Unies et les communautés afin de promouvoir la recherche sur les mouvements de population provoqués par la désertification.

### Abstract

Environmental disruptions are generally recognized as an increasingly important factor of migration. They can be both a cause and a consequence of population movements. It is a cause when people can no longer gain a secure livelihood in their homelands and are obliged to flee, having no other alternative. It is a consequence when environmental degradation results from the mass movement of people, both in the departure and the receiving areas. Environmental disruption can take many forms: brutal or slow-onset, natural or man-made, due to a single or cumulative changes. While these environmental disruptions can be extremely diverse, they have in common an affect on populations who are the most vulnerable and cannot adapt to a changing environment.

The linkage between the disruption and migration is not always direct, and can be difficult to identify, since it mingles with socio-economic factors. The migration can be the result of cumulative changes, sometimes labeled as a 'forced migration' which can actually be a coping strategy, a routine mechanism to cope with resource scarcity. In the case of desertification, migration can be a forced choice as well as a migration strategy. It can also be a necessary relief to alleviate the demographic burden, and therefore can also help fight desertification. Migrations caused by drought and desertification share characteristics with the brutal displacements such as floods or tsunamis, in particular the absence of any legal status or organized protection. The relationship between environmental degradation and migration is important, complex, yet little understood. Desertification provides an example of environmental factors mingling with political and economic ones. Environmental migration needs to be recognized as a human cost of desertification, as a negative externality of it. Research on historical patterns of migration from Magreb countries supports the need for a cooperative human development framework which reduces the rate of desertification. Further research and investigation of desertification, as both a cause and a consequence of displacement and cross-border migrations should be pursued through programmes which facilitate the exchange of technical and scientific data and provide for the constant monitoring of the implementation of the UN Convention to Combat Desertification. As the only legally binding instrument at the disposal of the international community in the field of desertification, the UNCCD can offer the enabling framework for comparative studies between affected regions with different cultural and economic constraints, establishing an historical perspective and fostering environmental education and training initiatives in affected areas, with a view towards developing successful solutions to migration problems.

During the 2006 International Year on Deserts and Desertification major conferences have called attention to critical forced migration factors including the extremely high unemployment rate among youth in Africa and the impacts of migration on women such as increasing workloads and the threat to food security. The bottom-up approach that the UNCCD has adopted, from the decision-making to the implementation process, has raised the profile and strengthened the capacities of those directly affected by desertification. Within this particular context partnerships should be sought with UN bodies and the academic community to promote research on desertification-induced population movements.

## **Introduction**

Major environmental threats such as desertification carry the seeds of disruptive factors that can cast a long lasting shadow on the socio-economic security of nations and interstate relations. The magnitude of these disruptions is exposing the weakness of sustainable development, in its *stritu sensu* conception, as a policy paradigm for environmental security (Boulaharouf and Pattie, 2006).

The central, distinguishing policy feature of desertification is that it shifts the terms of debate from traditional sustainable development doctrine holding that the goals of economic development and environmental stewardship are interdependent, to the notion of environmental security, which requires a much more complex process of trading off social, economic and environmental priorities. This formulation suggests that poverty, underdevelopment, and political disenfranchisement are both the cause and effect of environmental degradation.

Given its universal nature, global impact and the close relationship it holds with key socio-economic issues such as food security, agricultural productivity, water resources and water management, population and demographic flows, the desertification process embodies a strong disruptive potential in terms of global stability. By directly contributing to food insecurity, famine, poverty and migrations it should retain our attention in so far as it carries the constitutive elements of few but rather specific dynamics able to give rise to social, economic and political tensions and act as catalytic dynamic for conflict generation.

The environmental dimension of conflicts and migration point at the comparative advantage of the United Nations Convention to Combat Desertification, as a process and unique conceptual intervention platform to address the challenges of environmental stress, conflict prevention and the security-environment interlinkages.

By contrast to other global issues, desertification and land degradation can be defined as non-controversial. The process doesn't generate major political divergences and powerful business interests have been replaced by an emphasis on local community empowerment and traditional soil and water conservation - well-being instead of well-having.

The atypical nature of the UNCCD process, this 'desertification exception', derives from a series of factors, the most important of which is to be found in the erroneously perceived spatial and temporal nature of the desertification threat<sup>1</sup>. Desertification, indeed, is still perceived in the developed world as a far away problem, limited in scope to a regional manifestation and lacking the magnitude of a global scale cataclysm. A second, equally important limiting factor relates to the discernment of desertification as a full-fledged environmental issue. Desertification still carries in the public perception the hallmarks of a purely developmental process. This singular view is further backed by established bilateral schemes that persistently address desertification through the restrictive optic of traditional cooperation for development. Desertification for example, is hardly ever entrusted to Ministries of Environment but rather delegated to Ministries of Cooperation which often results in a chronic misunderstanding and ambivalence of the emerging environmental security issue at stake. By slowly eroding the environmental dimension of desertification, this flawed perception may result in further removing the issue from the global environmental agenda and seriously limit an enhanced and coordinated response from the international community. Desertification for instance, is often neglected as compared to food or humanitarian crises, as an important factor for migration.

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In his comments on the desertification synthesis of the "*Millennium Ecosystem Assessment*" (2005) Walter Reid, director of the assessment observed that dryland systems in developing countries are the regions where people are experiencing the greatest problems from the breakdown in the supply of ecosystem services and that "the ecological, social, and economic impacts of desertification can affect not just the people living in drylands, but also countries far removed from those regions."

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<sup>1</sup> The term 'desertification' was originally used by Aubreville (1949) to mean the creation of deserts in tropical regions: the removal of indigenous trees and excessive cultivation by marauding natives of nutrient-weak soil was leading to soil erosion, and eventually to the creation of deserts via edaphic (soil) desiccation. Aubreville viewed desertification primarily as a process but also referred to it as an event (the end state of a process of degradation). He described how forested regions were transformed into savanna and savanna into desert-like regions. One of Aubreville's central concerns was the rate of destruction, resulting from human activities, of Africa's tropical forests. He noted that cultivation, deforestation, and erosion were so entwined as to lead to the destruction of the vegetative cover and soils in the forested regions of tropical Africa where "the desert always threatens, more or less obviously, but is always present in the embryonic state during the dry and hot season" (le désert menace toujours, plus ou moins évidemment, mais il est toujours présent, à l'état embryonnaire, dans la saison sèche et chaude). Savanna would result. Continued disregard for the fragility of the savanna would result in the creation of desert-like conditions.

A fruitful concept for studying environment/conflict links is environmental scarcity. Thomas Homer-Dixon (2000) in his influential book *“Environment, Scarcity and Violence”* has provided a composite concept of the environment/scarcity/violence nexus which includes the (conflict) challenges groups within states are subjected to as a result of three large forces for change: population increase, environmental impacts, and increased inequality.

Mohamed Suliman in *“Ecology, Politics and Violent Conflict”* (1999) noted the scientific corroboration of an ever-increasing environmental dimension as a triggering element of national and trans-boundary migration flows, may radically change the elements of the conflict equation.

The Convention is based on the principles of participation, partnership and decentralization – and suggests ways to go beyond conventional modernity models by promoting sophisticated yet moderate-impact technologies based on traditional technologies and local knowledge, redirecting relentless accumulation, and advocating ways of living that are simpler in means, but richer in ends. The bottom-up approach that it has adopted for the implementation process, has raised the profile and strengthened the capacities of those directly affected by desertification, and to assist key local actors in identifying and addressing challenges linked to the vision of sustainable development.

Desertification does not refer to the expansion of existing deserts. It occurs because dryland ecosystems are extremely vulnerable to over-exploitation and inappropriate land use. The causal chain that leads to desertification has been analysed at length and with different findings. (Glantz and Orlovsky, 1984) The suggested causes include, inter alia, drought and climate change, population dynamic, poverty, and external constraints imposed by the global economy. None of these causes can explain the land degradation process by itself. However, there appears to be a strong correlation among between population growth and land degradation.

Limited knowledge and inappropriate methods of using natural resources, weak institutional capacities, and lack of cooperation and communication mechanisms between various actors are among the challenges in efforts to prevent land degradation and desertification. While the “combat against desertification” refers primarily to activities aiming at positive changes in the natural environment, it involves also the consideration of a multiplicity of factors that influence the reaching of this goal.

The most common contemporary perception of the linkage between desertification and security concerns desertification as an important trigger or accelerating factor of tensions within and among countries. Desertification per se is not considered as the major security risk; rather it is seen to add to the existing potential for conflict.

The focus on desertification brings forward a new type of confidence-building and coping measure that can effectively reduce the risks to security.

The United Nations Convention to Combat Desertification, and the action programmes prepared as part of the Convention process, provide a powerful tool for introducing and strengthening these confidence-building measures, as well as addressing the elimination of fundamental causes of social instability and conflicts.

### **The Tricky Linkage Between Environment and Migration**

Massive population displacements triggered by natural disasters have recently made headlines all around the world. The tsunami that hit the coasts of South-East Asia at the

end of 2004, or the hurricane Katrina, which flooded the city of New Orleans, have forced thousands to flee and re-locate, sometimes with very low expectations of return. These emergency, brutal evacuations attracted a considerable amount of media attention. Slow-induced migrations such as those triggered by desertification, however, are less likely to draw media attention. These flows, despite sharing many characteristics with brutal displacements, have a far less powerful visual and emotional impact. They affect more people and more regions of the world though, transforming deeply many societies.

Debates about the interconnections between environmental change and forced population displacement are relatively new, and little academic research has so far been produced on this topic. While it is likely that human settlements have always been faced with environmental change, the extent to which this change induces migration is still largely unknown. However, environmental disruptions are generally recognised as an increasingly important factor of migration. In a preparatory meeting for the June 1992 Rio Summit of the United Nations Conference on Environment and Development, Sadako Ogata, UN High Commissioner for Refugees stated that environmental degradation has increasingly become both a cause and a symptom of massive population movements. Since then, the linkage between population displacement and environmental change has been a topic of growing concern to the international community. The concept of 'environmental refugees' appeared in a 1985 UNEP report (El-Hinnawi 1985), and has led to controversies in the scientific community since then.

Environmental disruption is recognized as both a cause and a consequence of population movements (Black 1998). It is a cause when people can no longer gain a secure livelihood in their homelands and are obliged to flee, having no other alternative. It is a consequence when environmental degradation results from the mass movement of people, both in the departure and the receiving areas. In the departure areas, damage may occur when farmers leave behind fields and pastures they have worked for centuries. In Casamance, highly developed irrigation systems have broken down because of lack of maintenance. It has led to erosion and the loss of fertile soil. Environmental degradation can also occur in receiving areas when large numbers of refugees concentrate in camps, generating heavy pressure on surrounding natural resources.

As one can see, environment and migration interact in a highly complex relationship – a relationship that also bears many policy applications. Migration in itself is an increasingly complex process (Castles and Miller 2003). People rarely move for a single reason, or to a single country. The motivations to migrate, the intertwining of the 'push' and 'pull' factors are increasingly complex, and so are the trajectories and itineraries of the migrants. Migration is also an individual decision: facing the threat of a natural disaster, some people might want to leave, while others will choose to stay. It also depends of the livelihoods of the people, their familial constraints, etc. Volcano eruptions provide good examples of these individual decisions: hours before the eruption, in a way that seems sometimes surreal, some people are still reluctant to evacuate. Sometimes they simply cannot do so. When the evacuation of the city of New Orleans was ordered, days before the hurricane Katrina hit, the authorities forgot that many people had no car and could not leave the city by themselves. The environmental factor is usually not the sole factor at stake: it mingles with economic and political factors. Environment is the root of an increasing number of regional conflicts, especially when access to water is at stake, and environmental disruption is often linked with a weak economic structure. Desertification, for example, is often associated with

land property issues, poverty, or regional conflicts. Finally, as said before, migration can be a cause as well as a consequence of environmental degradation.

### **1. Environmental Change and Forced Displacements**

Most of the research and media attention is devoted to South-North and East-West migration flows. However, one should not forget that most of the flows happen in the South: from a rural area to a town or city, then possibly from this conurbation to a neighbouring country. Only a small minority, those who can afford it, choose to migrate towards Europe or the United States. Migration trajectories are usually indirect, and comprise different, progressive steps (Castles and Miller 2003). It often takes the form of an internal migration – migration to another country is far less frequent, and migration to another continent is the exception. Those who can make it to Europe or America are usually supported by their families, while the poorest of the poor are stuck in their country or in their village.

Environmental change plays an important role in the decision (Untuhl, Krol and Kliot 2004) to migrate. While the number of conventional refugees reached an historical low of 8.4 million at the end of 2005 (UNHCR 2006: 3), the number of environmental migrants keeps increasing, even if the scientific community is divided about the extent of the increase. Many believe the number of environmental migrants to be around 25 million<sup>2</sup>, a number that equals the sum of ‘conventional’ refugees and internally-displaced people. Climate change is expected to make this number dramatically bigger. A recent report on the economics of climate change, commissioned by the UK Treasury, revealed that as many as 200 million people could be at risk of being driven from their homes by flood or drought by 2050 (Stern 2006).

However, these alarming figures must be taken with great caution: the figure of 200 million ‘refugees’ corresponds to the number of people whose homelands are at risk of being affected by climate change – if nothing is done to slow down its pace. It is therefore a potential, artificial figure that does not correspond to an actual migration. One cannot forecast the strategies that will be developed by the populations affected by climate change, and their capacity to adapt (that we don’t know) is certainly a key factor in predicting the number of migrants. Moreover, these figures also bear a political meaning: they are produced with the aim of convincing governments to act to fight climate change. Without going as far as saying that they are artificially inflated, this is an element that must be kept in mind.

#### *A particular type of migrants*

The environmental disruption leading to the migration process can take many forms: brutal or slow-onset, natural or man-made, due to a single or cumulative changes, etc. The International Organisation for Migration (1992: 11) has ranked these disruptions into six categories:

- environmental disruptions prompted by climatic or geological forces which include cyclones, volcanoes, earthquakes, floods and other “natural disasters”;
- biological disruptions initiated by pathogens, insects (mainly locusts), pests and flora, which cause major population movements, particularly where they affect production of staple food item;

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<sup>2</sup> This figure was initially produced by the Red Cross, and has been frequently re-used, including by the Institute for the Environment and Human Security of the United Nations University.

- slow-onset disruptions which include global warming effects, deforestation, land degradation, erosion, salinity and may contribute to drought and famine;
- accidental disruptions, an inevitable by-product of the industrial revolution;
- disruption caused by development programs such as dams or environmental policies and urbanization;
- and finally environmental warfare when the environment becomes a major target in times of conflict.

Is it possible to gather all people displaced by these varied causes under the umbrella label of ‘environmental migrants’? The linkage between the disruption and migration is not always direct, and is difficult to identify, since it often mingles with socio-economic factors. The migration can be the result of cumulative, and intertwined, changes, and is seldom the result of a single change. Most environmental migrants do not cross an international border, and are therefore classified as ‘internally-displaced people’ (IDPs). Unlike conventional refugees, environmental migrants do not flee their country, but their immediate environment. This is another reason why their number is so imprecise: data on migration flows can only be produced when the crossing of an international border is recorded.

Furthermore, environmental migrants are not recognised as refugees under the provisions the Geneva Convention. The Convention stipulates that a person must cross an international border and flee a persecution linked to his/her race, religion, political opinion, sexual orientation or belonging to a particular group in order to qualify for a refugee status. Environmental migrants obviously do not fulfill these conditions, and thus cannot claim any legal status or specific protection. Simms and Connisbee call them ‘legal gypsies’, and argue that environmental disruptions should be considered as political persecutions (2003: 30).

The difficulty to identify and to count environmental migrants makes the drafting of relevant policies an almost impossible task. There’s an obvious lack of empirical research in this field, and more research will be needed before adequate policies can be adopted.

### ***Forced and voluntary migration***

As for now, most of the research addressing environmental migration has assumed that these migrations were forced, and not voluntary. It is of course always the case with natural disasters and emergency evacuations. Even if they are reluctant to do so, the migrants have no other choice than leave. In the case of slow-onset environmental changes, however, the situation can be different. The migration can then be, in certain cases, a coping strategy, a routine mechanism used to cope with resource scarcity. In these cases, the ‘push’ and ‘pull’ factors are mixed: some migrants are at the same time forced and willing to leave. The border between forced and voluntary migration is blurred – this bears great importance for migration policies.

We argue that in the case of desertification, migration can be a forced choice as well as a coping strategy, conceived as such by the migrants. It can also be a necessary relief to alleviate the demographic burden, and therefore can also help fight desertification. We propose to also consider this aspect of desertification-induced migration, which we will develop in the next section.

## **2. Desertification and Migration**

Desertification is a worldwide process, affecting all continents. According to the Secretariat of the United Nations Convention to Combat Desertification (UNCCD), “over 250 million people are directly affected by desertification, and about one billion people in over one hundred countries are at risk”<sup>3</sup>. In many regions, this desertification process is closely associated with migration flows. In China, the Gobi desert is progressing at a pace of 10,000 square kilometres per year, forcing people to relocate in the provinces of Inner Mongolia, Ningxia and Ganzu. In Mexico, desertification draws thousands to attempt to cross the US border. Cities like Quetta, the capital of Pakistan’s Baluchistan province, is expected to face severe water shortages in the next decade. But the most severe problem lies in Africa, where it is estimated that up to 60 million people could be displaced by desertification.

At this stage, one should distinguish between droughts and desertification. In the case of droughts, migration is directly related to a short-term natural disaster. In the case of desertification, things are more complex: migration is indirectly linked to a slow-onset, man-made, cumulative process. This makes the migration process more complex, longer, and allows us to differentiate between different cycles. These cycles co-exist, and produce different types of migration:

- Very long-term cycles: aridification. This process is linked to climate evolution, and will be aggravated by climate change. It involves very slow and progressive population displacements, over several generations.
- Mid-term cycles: desertification. Migration is here linked to a cumulative process, and often circular. In this case, migration can be a livelihood strategy.
- Short-term cycles: droughts. The displacement, here, is a forced one, linked to a short-term disaster. A possibility of return exists.
- Seasonal cycles: seasonal migration, which is part of a social routine.

The migration process is cumulative and circular: while it can be a coping strategy for food insecurity, it is no longer the case with droughts. Migration ceases to be age and sex selective, and becomes a forced choice.

Migration impact is not restricted to the individual level. We have seen here how migration could be induced by environmental change. However, migration also has an impact on the environment itself, at the macro-level: it can be a consequence of environmental change, but also a cause. While emigration alleviates the demographic burden, immigration can induce and aggravate environmental problems: land property issues, over-exploitation of the soil, etc. This process induces a circular relationship between environment and migration: environmental change induces a migration, which in turn provokes another environmental change, etc. This is particularly the case with desertification: migration flows, if not properly managed, can induce land degradation and water shortage problem, and lead to new migration flows.

### *A few examples in Africa*

For a long time, Sahelian population has used migration as a coping strategy for food insecurity. Herders have always included spatial mobility in their way of life but. During 1983-85 droughts, a shortage of food supply forced them to move southwards. In this case, migration had ceased to be a coping strategy to an ecological crisis, and affected entire families instead of being age and sex selective. Herders and their families had no other choice.

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<sup>3</sup> As stated on the Convention website: <http://www.unccd.int>

Edmond Bernus (1999) relates that during the 1983-85 drought in Niger, the Tuaregs Illabakan were obliged to leave their traditional grazing lands when degradation reached crisis proportions. They left to the south towards an unknown destination. Most of the group left for a trip that lasted two months. They responded primarily to 'push' factors, and the 'pull' factors' role was very limited. The same situation is described by Harouna Mounkaïla (2002), talking about the departure of most families from the village of Mogonana in Niger to settle in Niamey. In this case, they abandoned the idea of returning; the movement itself was the core of the problem. They could certainly be considered as true environmental 'refugees'. Their movement affected entire families and uprooted individuals. It was unforeseen and unwelcome. They either were regrouped in camps or moved to the slum areas of the city, and were in crucial need of protection as well as assistance.

As one will see, the issue of legal status and protection is primordial. When nomadic Peul and Tuaregs crossed the border of Niger to take refuge in Ghana, they were not recognized as refugees, and their arrival was unwelcome. Essuman-Johnson (1996) compares the situation of those nomadic herders with Liberian refugees who arrived in Ghana at the same time. While the two groups arrived in Ghana at the same time and under the same conditions of destitution, assistance and protection were not the same. Sahelian refugees who were victims of a degraded environment were not considered as refugees, but seen as economic migrants and were left destitute. On the other hand, Liberian refugees were given *de facto* refugee status and regrouped in a camp where they received assistance and protection from the international community. This salient difference between two comparable situations illustrates perfectly the issue of the legal status and protection of environmental migrants: while they can experience situations very similar to those of conventional refugees, they are not entitled to the same benefits.

### **3. Protection and Status**

The concept of 'environmental refugees' dates back to the 1970s, when Lester Brown, from the WorldWatch Institute, an environmental think-tank, used it in various speeches. Jodi Jacobson contends that the term was first used in reference to the Haitian boat people (Jacobson 1988). She argues that land degradation in Haiti created these desperate people and their dangerous journey to south Florida. But it is only in 1985 that a report from the United Nations Environment Programme (UNEP) specifically addressed the issue (El-Hinnawi 1985). It appeared at the time of the great drought in Sahel, when the world became aware of an environment increasingly threatened. These threats had already been raised during the Stockholm Conference in 1972, and would be raised again at the Rio Summit of 1992, as well as at the Johannesburg summit of 2002. Later, the concept has been frequently used in various international conferences, such as the 1997 Kyoto Conference on Climate Change. High-profile officials such as former US President Bill Clinton or UN former Secretary-General Boutros Boutros-Ghali have also used the term, facilitating its recognition in the media. Since then, advocacy groups, environmentalists, NGOs, and a few social scientists, have produced quite a lot of grey literature on this 'new' kind of migrants. The concept has enjoyed an increasing visibility in the media, and has attracted more attention from policy-makers than from researchers.

However, their definition of an "environmental refugee" as someone fleeing from environmental decline is very wide. Here is the definition proposed by Essam El Hinnawi:

*“...Environmental refugees are defined as those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life.”* (El Hinnawi 1985: 4).

This very large definition includes three types of ecological refugees:

- those who have been temporarily displaced because of an environmental stress (usually a natural disaster);
- those who have to be permanently displaced and re-settled in a new area;
- and finally people who migrate within their own national boundaries because *“the resource base in their original habitat has deteriorated to such a degree that it can no longer meet their basic needs”* (El Hinnawi, 1985: 5).

This definition was criticized by Astri Suhrke and Annamaria Visentin (1991) who stated that “it is so wide as to render the concept virtually meaningless... Uncritical definitions and inflated numbers lead to inappropriate solutions and compassion fatigue. We should not, however, reject outright the concept of environmental refugees. Instead we should formulate a definition that is more narrow but more precise”. They proceed to make a distinction between environmental refugee and environmental migrant. The latter is someone who “makes a voluntary, rational decision to leave a region as the situation gradually worsens there”, who moves from an area by choice. On the opposite, environmental refugees are “people or social groups displaced as a result of sudden, drastic environmental change that cannot be reversed”. They are compelled to flee. Another distinction is between the truly desperate and vulnerable who cannot expect support from their own governments and are therefore refugees, and those with more resources, contacts and the time to plan for their migration.

The concept of an “environmental refugee” is still very controversial. JoAnn McGregor argues that “the category ‘environmental refugee’ confuses rather than clarifies the position of such forced migrants, since it lacks both a conceptual and a legal basis”. Still labeled as economic migrants, many of such forced migrants fall outside the categories protected by instruments of international refugee law: environmental decline is not yet recognized as a legitimate cause of refugee movements.

### ***A Refugee Status?***

The lack of a legal status for environmental migrants might first appear as an injustice that needs to be corrected. Some authors, such as Conisbee and Simms (2003), have argued that environmental migrants should be given a refugee status, and many call for the creation of a new category of refugees. Hans Van Ginckel, Under-Secretary General of the United Nations, recently declared<sup>4</sup> that the United Nations « should prepare now, however, to define, accept and accommodate this new breed of ‘refugee’ within international frameworks ». Other national and local initiatives also call for the international recognition of ‘environmental refugees’. A resolution<sup>5</sup> passed by the Belgian Senate on 20 April 2006 asks the Belgian government to support the international recognition of ‘environmental refugees’ within the framework of the Geneva Convention, and Australia’s Labor Party published a brochure recommending

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<sup>4</sup> *As Ranks of ‘Environmental Refugees’ Swell Worldwide, Calls Grow for Better Definition, Recognition, Support.* Press release of the United Nations University’s Institute for Environment and Human Security, 12 October 2005.

<sup>5</sup> Proposition de résolution visant à la reconnaissance dans les conventions internationales du statut de réfugié environnemental, proposal lodged by Belgian Senator Ph. Mahoux on 3 February 2006.

that Australia “should be working at the UN to ensure appropriate recognition of climate change refugees in existing conventions, or through the establishment of a new convention on climate change refugees” (Sercombe and Albanese 2006). On the field, the UN High Commissioner for Refugees has recently helped the victims of a natural disaster on two occasions: the tsunami that hit Southeast Asia at the end of 2004, and the earthquake that struck Pakistan in October 2005. These two operations are quite significant, since the UNHCR mandate does not normally cover the people displaced by natural disasters. These operations were justified by UNHCR’s expertise and presence in the region, but, as Ruud Lubers, then-UN High Commissioner for Refugees, declared it after the tsunami operation, “it was indeed a very special situation”.

These initiatives are, of course, an appealing prospect. However, an international recognition of ‘environmental refugees’ would be problematic in many regards. Many scholars, in the field of migration studies, still regard the Geneva Convention as the paramount of protection<sup>6</sup>, and fear that a legal recognition of environmental refugees would water down the Convention and the very concept of ‘refugee’. The trend of immigration policies in Europe and United States is one of restriction, and not of extension of rights. Hence there is a real risk that any change to the Geneva Convention would bring further restriction to asylum rights, instead of extending them.

Isolating the environmental factor might lead to the oblivion of other causes of migration, which often mingle with environmental degradations. The environment needs to be considered in its global dimension, and not as an isolated factor driving migration. Singling out the environmental factor could also lead to the oblivion of the very causes of these degradations: environmental disruptions are seldom purely natural. Desertification provides a good example of environmental factors mingling with political and economic ones.

Through the terms “environmental refugees”, we associate tightly refugees and environment. This link simplifies extremely a complex situation; it implies that forced departure is rooted in degradation of natural resources without mentioning the multiple factors others than natural (demographic, economic, development) which are responsible of this situation. Environmental degradation is caused by more deep-rooted problems based on political, economic and social inequality. Responsibility of governments in producing environmental refugees is thus forgotten if the sole environmental factor is considered.

For these reasons, the term of ‘environmental refugee’ is misleading, and possibly harmful for the refugees themselves. We have also shown that environmental migration, especially in the case of desertification, was not always forced, but could also be a coping strategy: for those who are not compelled to flee, a refugee status wouldn’t make any sense. Given the current state of the research, it is still difficult to differentiate between the different types of migrants. More empirical research will be needed before an efficient protection system can be implemented for those environmental migrants in need of such assistance.

### **Conclusion: A Modest Proposal**

Whether these migrants are eventually recognised as refugees or not, the issue of financial compensation will remain. Any protection for environmental migrants would require consequent funding. As said before, the number of people that could fall into this category would outnumber the current amount of conventional refugees. New

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<sup>6</sup> See for example Black (2001) and Castles and Miller (2003)

instruments, new agencies, new programmes would be needed. In order to fund these instruments, international cooperation would be a necessary, but not sufficient, condition. A scheme for a global environmental responsibility should also be designed. As a framework for such mechanism of international cooperation, we propose to use the theory of public goods.

Global environment can certainly qualify as a global public good. The first studies on public goods have been conducted by Samuelson in the 1950s, who defined public goods as being non-rival and non-excludable goods, meaning that it was impossible to exclude an individual from consuming a certain good, and that the consumption of this good by the said individual was not harming another individual's consumption of the same good. More recently, researches funded by the UN Development Programme (UNDP) have pushed the concept forward, and have elaborated the concept of 'global public goods'. In a milestone book published in 1999, Kaul, Grunberg and Stern define global public goods as 'goods whose benefits extend to all countries, people, and generations' (Kaul, Grunberg and Stern 1999). Global environment clearly fulfils the criteria of this definition, and can therefore be considered as a global public good.

If global environment is a global public good, any damage to this good can certainly be considered as a global public 'bad'. Reasoning by analogy with global public goods, I will here attempt to define a global public bad as a good whose costs extend to all countries, people and generation. If we accept this definition, desertification, by its considerable extent, by the huge and durable impact it has on populations all around the world, certainly qualifies as a global public bad.

In a way or another, most countries will eventually be affected by desertification and the migration it induces, either as a sending or as a destination country. International cooperation is thus needed to fight desertification, but also to address the plight of the migrants who are forced to abandon their homelands. The United Nations Convention to Combat Desertification (UNCCD) provides a framework for an international cooperation in fighting desertification, but could also be used to provide mechanisms of burden-sharing for the migrants induced by desertification. The extent of these migration flows calls for mechanisms of regulation, such as burden- and responsibility-sharing schemes.

The UN Framework Convention on Climate Change (UNFCCC) contains an appendix aimed at constituting a global adaptation fund that would to meet the costs of adaptation to climate change. The costs of migrations induced by climate change can certainly be considered as 'costs of adaptation'. Article 4.4 of the Appendix states that 'developed country Parties and other developed Parties in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects'. Despite repeated pledges, this part of the Kyoto Protocol is still in the limbo. A similar mechanism, that would probably need to be more stringent, could be implemented within the UN Convention to Combat Desertification. This would guarantee a better protection for those affected by desertification, without creating the legal precedent of a new refugee category.

Desertification is a global issue, and not just a local problem. Therefore, a global environmental commitment needs to be acknowledged, and regional solutions need to be implemented. One country cannot bear alone the burden of desertification-induced migration. Regional burden-sharing schemes are needed to alleviate the burden, and environmental migration needs to be recognised as a human cost of desertification. If

desertification is a certainly forgotten cause of migration, migration is also a forgotten cost of desertification.

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