

MIGRATION DYNAMICS GENERATED BY ENVIRONMENTAL PROBLEMS

Janos J. Bogardi and Fabrice G. Renaud

*United Nations University, Institute for Environment and Human Security, Bonn,
Germany (bogardi@ehs.unu.edu)*

DINÁMICAS MIGRATORIAS GENERADAS POR PROBLEMAS MEDIOAMBIENTALES

Janos Bogardi y Fabrice G. Renaud.

Instituto para el Medio Ambiente y la Seguridad Humana. Universidad de las Naciones Unidas (UNU-EHS), Alemania.

Resumen

Se disparan las alarmas en todo el mundo respecto al estado del medioambiente y las presiones crecientes a las que se le somete. Por ejemplo, la Evaluación de Ecosistemas del Milenio (EM) demostró que los ecosistemas están sometidos cada vez a más presión y degradados hasta tal punto que no pueden proporcionar niveles adecuados de servicios para el bienestar humano. Según la definición de EM, los ecosistemas proporcionan servicios de apoyo (ej. ciclo nutritivo), servicios de suministro (ej. alimento, agua), servicios básicos (ej. purificación del agua) y servicios culturales. La alteración de estos servicios a través de la degradación de los ecosistemas, provocada por el hombre o de forma natural, puede llegar a crear gran tensión en la sociedad. Éste es el caso, aunque no el único, de las tierras secas, de las cuales entre un 10 y un 20% se ve afectado por la desertificación, donde la presión demográfica está en aumento y donde el suministro inagotable de agua es limitado. Aunque la composición y los procesos de los ecosistemas están en constante cambio, los ecosistemas debilitados no pueden desempeñar el papel de amortiguador para la sociedad como lo harían en caso de inundaciones o sequías, por ejemplo, y pueden incluso agravar el efecto de estos peligros. De esta forma, llega un punto en el que las degradaciones medioambientales a escala local y/o global ejercen suficiente presión para superar los mecanismos de acoplamiento y las capacidades de adaptación de individuos o de comunidades enteras. En estas circunstancias, es posible que los individuos se vean obligados a emigrar dentro del país de origen (desplazamientos internos) o fuera (migración internacional) en un intento de restaurar los niveles de calidad de vida.

Existen pruebas de que se están produciendo cambios medioambientales (cambio climático, degradación de la tierra, deforestación y pérdida de biodiversidad), en ocasiones a pasos agigantados. A medida que la calidad de vida empeora y se manifiestan los cambios climáticos extremos con mayor frecuencia y dureza, el número de personas que deciden emigrar aumenta. Este movimiento en masa tiene graves efectos en el medioambiente. Aún así, los problemas medioambientales son, por lo general, la causa antes que el efecto de la emigración.

En la última década han salido a la luz estimaciones alarmantes sobre el número de personas que emigran por factores medioambientales y a los que se les ha etiquetado como “refugiados medioambientales”. La mayoría de las estimaciones sitúan el número de estos emigrantes a nivel mundial muy por encima del de emigraciones provocadas por motivos socio-políticos. Hemos de reconocer que, en primer lugar, calcular el índice de emigraciones provocadas por estos factores es muy difícil y, en segundo lugar, el concepto de ‘refugiados medioambientales’ es en sí mismo cuestionable desde un punto de vista científico. Estas dificultades de definición y cuantificación se explican principalmente por el hecho de que la decisión de emigrar no está relacionada exclusivamente con un único factor, sino que se debe (aunque no siempre) a la combinación de factores sociales, económicos, políticos y medioambientales. Tanto la falta de una definición propia como el mismo hecho de que se produzca esta emigración medioambiental nos instan a tratar los problemas inherentes. De tal forma que tan sólo se reconoce y asiste a los refugiados políticos que atraviesen la frontera nacional bajo la Convención sobre el Estatuto de los Refugiados de 1951. Al haber reconocido esta falta de mecanismos para asistir a los emigrantes y refugiados medioambientales, se ha propuesto un enfoque de cinco vías para tratar de forma simultánea los asuntos científicos, de concienciación, legislativos, de ayuda humanitaria y de desarrollo institucional. Los conceptos y acciones para tratar estos asuntos se pueden ver como una contribución al esfuerzo del sistema de Naciones Unidas, que actualmente está revisando su enfoque y mecanismos para afrontar la migración internacional.

LES DYNAMIQUES MIGRATOIRES PROVOQUEES PAR LES PROBLEMES ECOLOGIQUES

Janos J. Bogardi et Fabrice G. Renaud.

*Institut pour l'Environnement et la Sécurité Humaine. Université des Nations Unies (UNU-EHS),
Allemagne.*

Résumé

Des signaux alarmants apparaissent dans le monde entier concernant l'état de notre écosystème et l'augmentation des pressions exercées sur ce dernier. Par exemple, le rapport sur les écosystèmes du Millénaire a démontré que les écosystèmes étaient soumis à des pressions croissantes et que l'avenir de certains d'entre eux était tellement compromis qu'ils ne pouvaient plus assurer des niveaux de services assurant le bien-être humain. Selon la définition donnée par le MA, les écosystèmes fournissent des services de soutien (cycle des substances nutritives), d'approvisionnement (nourriture, eau), de régulation (assainissement des eaux) ainsi que des services culturels. Les bouleversements survenus au sein de ces services par le biais de la dégradation anthropogénique ou naturelle des écosystèmes peuvent être lourds de conséquences vis-à-vis de la société. Ceci est particulièrement vrai pour, sans être limité à celles-ci, les régions sèches dont 10 à 20% sont touchées par la désertification, où la pression exercées par les populations est croissante et où les ressources en eau sont limitées. Bien que la composition et l'évolution des écosystèmes soient fluctuantes, les écosystèmes affaiblis ne sont pas en mesure de jouer les tampons qu'ils doivent alors assurer auprès de la société en cas d'inondation ou de sécheresse par exemple et sont même susceptibles d'aggraver l'impact de ces catastrophes. La situation est telle que les dégradations écologiques à l'échelle locale et/ou mondiale exercent une pression suffisante pour anéantir les mécanismes et les capacités d'adaptation des individus ou des communautés toutes entières. Dans ces circonstances, il est possible que les individus soient forcés d'émigrer soit au sein du pays d'origine (déplacements internes) soit à l'extérieur (migration internationale) dans l'espoir de retrouver des niveaux de vie décents.

On a observé la preuve que des bouleversements écologiques (climat, dégradation territoriale, déforestation, et diminution de la biodiversité) avaient effectivement lieu, parfois à une cadence alarmante. Au fur et à mesure que les conditions de vie se détériorent et que les climats extrêmes se manifestent avec une fréquence et une gravité toujours plus accentuées, de plus en plus d'individus choisissent de migrer. Ce mouvement de masse a lui-même de lourdes conséquences sur l'environnement. Les problèmes écologiques constituent alors plus la cause que la conséquence du phénomène migratoire.

Au cours des dix dernières années, plusieurs estimations alarmistes sont parues quant au nombre de personnes ayant décidé de migrer suite à des facteurs écologiques les y poussant et que l'on a appelé les «réfugiés écologiques». La plupart de ces estimations placent le nombre de migrants écologiques largement au dessus de ceux dont la migration est liée à des motifs sociopolitiques. Rappelons d'abord qu'il est extrêmement difficile d'évaluer le taux de migrations dues à des facteurs d'ordre écologique et ensuite que le concept de réfugié écologique constitue une polémique au sein de la communauté scientifique. Les difficultés rencontrées pour définir et quantifier la migration sont principalement liées au fait que la décision de migrer est rarement le fait d'un facteur isolé et fréquemment (mais pas exclusivement) la conséquence d'un mélange de facteurs sociaux, économiques, politiques et écologiques. L'absence de définition spécifique, ajoutée au fait que la migration à caractère écologique est un phénomène actuel, nous poussent à aborder les problèmes inhérents. D'autant plus que la Convention de 1951 relative au Statut des Réfugiés, seuls les réfugiés politiques qui franchissent une frontière nationale sont reconnus et assistés. En se fondant sur le manque de mécanismes pour l'assistance aux migrants et réfugiés écologiques, une approche à cinq volets a été élaborée afin d'aborder en même temps l'aspect scientifique, la prise de conscience, l'aspect législatif, l'aide humanitaire et les actions institutionnelles. Les réflexions et les actions s'intéressant à ces problèmes peuvent être perçues comme une contribution aux efforts fournis par l'organisation des Nations Unies qui revoit actuellement son approche ainsi que ses mécanismes dédiés aux migrations internationales.

Abstract

Alarming signals are emerging throughout the world about the state of our environment and the increasing pressures exerted on it. For example, the Millennium Ecosystem Assessment (MA) showed that ecosystems are under increasing stress and some of them are so compromised that they cannot provide adequate levels of services for human wellbeing. Following MA definition, ecosystems provide supporting services (e.g. nutrient cycling), provisioning services (e.g. food, water), regulating services (e.g. water purification) and cultural services. The disruption of these services through anthropogenic or natural degradation of ecosystems has the potential to create great stresses on society. This is particularly through for, but not limited to, dryland regions of which 10 to 20% are affected by desertification, where population pressure is increasing and where renewable water supplies are limited. Although ecosystems

composition and processes are in constant flux, weakened ecosystems cannot play the buffer role they may otherwise provide society in case of floods or droughts for example and they may even aggravate the impact of these particular hazards. There comes a point when environmental degradations at the local and/or global scales exert enough pressures to overcome the coping mechanisms and adaptation capacities of individuals or entire communities. Under these circumstances it is possible that individuals are forced to migrate either within the country of origin (internal displacement) or outside (international migration) to attempt to restore decent levels of livelihoods.

There is observational evidence that environmental changes (climate, land degradation, deforestation, and loss of biodiversity) are taking place, sometimes at an alarming pace. As livelihoods deteriorate and climate extremes manifest themselves with increasing frequency and severity more and more people choose to migrate. This mass movement itself has serious environmental impacts. Yet environmental problems are rather the cause than the consequence of migration.

In the last decade there have been several alarmist estimates of the number of people who migrate because of environmental push factors and who were labelled “environmental refugees”. Most of these estimates place the number of environmental migrants worldwide well above that of migrations due to socio-political reasons. It has to be recognised that first, estimating the level of migrations due to environmental stressors is extremely difficult and second that the concept of environmental refugees itself is scientifically debated. These difficulties in definition and quantification are principally due to the fact that decisions to migrate are seldom linked to one factor alone and are often (but not always) due to a combination of social, economic, political and environmental stressors. Both this lack of proper definition and the fact that environmentally motivated migration is taking place urge to address the inherent problems. The more so that under the 1951 Convention relating to the Status of Refugees only political refugees who cross a national border can be recognized and assisted. Recognising this lack of mechanism to assist environmental migrants and refugees, a five pronged approach is proposed to address the scientific, awareness raising, legislation, humanitarian aid and institutional development issues simultaneously. Concepts and actions to deal with these issues can be seen as a contribution to the efforts of the United Nations system which is currently revising its approach and mechanisms to deal with international migrations.

1. Introduction

Alarming signals are emerging throughout the world about the state of our environment and the increasing pressures exerted on it. For example, the Millennium Ecosystem Assessment (MA) showed that ecosystems are under increasing stress and some of them are so compromised that they cannot provide adequate levels of services for human wellbeing. Following MA definition, ecosystems provide supporting services (e.g. nutrient cycling), provisioning services (e.g. food, water), regulating services (e.g. water purification) and cultural services. The disruption of these services through anthropogenic or natural degradation of ecosystems has the potential to create great stresses on society. This is particularly true for, but not limited to, dryland regions of which 10 to 20% are affected by desertification, where population pressure is increasing and where renewable water supplies are limited. Although ecosystems composition and processes are in constant flux, weakened ecosystems cannot play the buffer role they may otherwise provide society in case of floods or droughts. Rather, they may even aggravate the impact of these particular hazards. There comes a point when environmental degradations at the local and/or global scales exert enough pressures to overcome the coping mechanisms and adaptation capacities of individuals or entire communities. Under these circumstances it is possible that individuals are forced to migrate either within the country of origin (internal displacement) or outside (international migration) to attempt to restore decent levels of livelihoods.

There is observational evidence in many parts of the world that environmental changes (climate, land degradation, deforestation, and loss of biodiversity) are taking place, sometimes at an alarming pace. As livelihoods deteriorate and climate extremes manifest themselves with increasing frequency and severity more and more people

choose to migrate. This mass movement itself has serious environmental impacts. Yet environmental problems are rather the cause than the consequence of migration.

In the last decade there have been several alarmist estimates of the number of people who migrate because of environmental push factors and who were labelled “environmental migrants or refugees” (Myers, 2005). Most of these estimates place the number of environmental migrants worldwide above that of migrations due to socio-political reasons. It has to be recognised that first, estimating the level of migrations due to environmental stressors is extremely difficult and second that the concept of environmental refugees itself is scientifically debated. These difficulties in definition and quantification are principally due to the fact that decisions to migrate are seldom linked to one factor alone and are often (but not always) due to a combination of social, economic, political and environmental stressors. Both this lack of proper definition and the fact that environmentally motivated migration is taking place urge to address the inherent problems. The more so that under the 1951 Convention relating to the Status of Refugees only political refugees who cross a national border can be recognized and assisted. Recognising this lack of mechanism to assist environmental migrants and refugees, a five pronged approach is proposed to address the scientific, awareness raising, legislation, humanitarian aid and institutional development issues simultaneously. Concepts and actions to deal with these issues can be seen as a contribution to the efforts of the United Nations system which is currently reconceptualising and realigning its approach and mechanisms to address international migrations.

2. Environmental deterioration and migration within the human security context

The late twentieth century coincides with a period when global threats have been identified and brought forward through vigorous awareness raising campaigns. Deteriorating environmental conditions were already recognised in the 1970s, especially in developed countries and in subsequent years, the emergence of the green parties documented that the related issues were entering the mainstream political discussions. It was however not sooner that the end of the political bipolarity which dominated the post second world war that environmental issues have started to be seen in a broader context of human security (Brauch, 2005). Environmental sustainability and ecosystem health were recognised as being threatened by impacts of careless industrial and short-sighted agriculture practices, exhaustion of ecosystem-based resources, disregard of recycling and renewal of material and energy fluxes, and even by direct human interference like pollution or wilful destruction.

In parallel, the topic of migration has always been addressed through passionate and at times controversial debates both in receiving countries and countries of out-migration. At the time of writing in the last quarter of 2006, the issue of migration has come at the forefront again, particularly in pre-election periods in countries such as the United States and France but also in countries which have of late experienced significant waves of migrations such as in Spain and Italy. The later two countries have seen an increasing number of Northwest African migrants arriving on the shores of their most accessible coasts. The issue of regularisation of illegal migrants is currently very much debated within the European Union. For example, France decided to regularise illegal migrants on a case by case basis whereas in Spain and Italy mass regularisations of these migrants were envisaged. The different approaches created political tensions within the European Union. Bilateral agreements between France and Senegal and between Spain and Gambia were struck in order to better control at the source potential illegal

migrations. Another example of attempts to deal with illegal migrations can be taken from the American continent where the United States decided to go ahead with the construction of a controversial wall along portions of their border with Mexico.

These are just but a few examples of recent events to which can be added the current debates in the United Kingdom regarding immigration from Eastern European countries. It is not implied here that the current debates on migrations cited above are linked to environmental degradation, but it is important to highlight them to understand the context within which environmentally-driven debate is taking place. Globalisation has brought about an increase in exchanges of goods and services between countries and it is possible that it will also increase the fluxes of people around the world. These migrations have various root causes or combinations of root causes including economic factors (poverty, unemployment), social factors (poor welfare or education), environmental factors (degradation of ecosystems), or degraded security conditions (disrespect for human rights, persecution of minority groups, armed conflicts, etc.) (Boswell and Crisp, 2004). With the exception when one's life is directly threatened, the decision to migrate is often taken because of a variety of "push" and "pull" factors, rarely from a single individual constraint. However, in the past couple of decades (when environment degradation started to be included in the concept of human security) and in particular since the paper of El-Hinnawi (1985) there has been a debate as to whether environmental degradation is a major cause of migration throughout the world. Despite the twenty years that have elapsed since this paper, the debate is still raging with respect to definitions of what constitutes an "environmental migrant or refugee", the number of and routes taken by the migrants, and whether or not it was necessary to have a new category of migrants and/or refugees.

Nature can be seen as "environment" only in relation to humans. Hence, environmental deterioration is clearly man-made rather than nature's work. Thus, by identifying environmental refugees, human responsibility is felt to disappear. In this respect the age old question is still to be answered; should identifying the responsible individuals (who may happen to be sometimes the victims themselves) or assisting the affected in need have priority? Clearly, both must be done, if for nothing else but to interrupt the vicious cause-effect cycles, however human solidarity calls for urgent focus on assistance.

3. The push factor: Environmental degradation and deteriorating ecosystem services

Ecosystems provide a wide range of services to society including products (e.g. food, fuel, and fibre), regulating factors (e.g. climate regulation), spiritual and aesthetic benefits (MA, 2005a). Ecosystems are affected by direct and indirect drivers which interact with each other, operate in feedback loops and determine the level of services they can provide to society. The Millennium Ecosystem Assessment (MA) identifies direct drivers as climate change, nutrient depletion and pollution, land conversion leading to habitat change, overexploitation, and invasive species and diseases; and indirect drivers as demographic, economic, socio-political, scientific and technological change, and cultural and religious factors (MA, 2005a).

The MA (2005a) has revealed an alarming degradation of ecosystems and thus of the services that could be provided to society by these ecosystems. The General Synthesis Report of the MA (2005b) highlights, among other points that:

- Fifteen of twenty four ecosystem services analysed are being degraded or utilised in an unsustainable way, mainly through anthropogenic actions to increase the supply of specific services.

- These actions could further accelerate the degradation of ecosystems although more scientific evidence of this is required.
- The poor are the ones suffering the most from the decline in ecosystem services with the rural poor being particularly vulnerable to changes in ecosystem services.

Particularly highlighted by the MA (2005c) is the fact that 2 billion people living in arid, semi-arid and subhumid regions are extremely vulnerable to the loss of ecosystem services, including water supply. The Desertification Synthesis of the MA (2005d) which directly addresses the situation in dry regions highlights in particular that (not an exhaustive list):

- 10 to 20 percent of drylands are already degraded (the document also highlights the fact that there is uncertainty in the measurement of the extent of desertification).
- Pressure is increasing on dryland ecosystems for providing services such as food, and water for humans, livestock, irrigation, and sanitation.
- Climate change is likely to increase water scarcity in regions that are already under water stress as they accommodate close to a third of world population but harbour only 8% of global renewable freshwater resources.
- Droughts are becoming more frequent and their continuous reoccurrence can overcome the coping mechanisms of communities.

These and all the other factors and impacts identified in the MA greatly stresses communities and makes the achievement of the Millennium Development Goals extremely hard to be reached and sustained in certain parts of the world. When the coping mechanisms and adaptation strategies of communities are overwhelmed by the loss of ecosystem services, droughts and loss of land productivity become important factors triggering the movement of people from drylands to other areas (MA, 2005d).

In concluding this section, it is important to note that ecosystems are in constant fluxes and rarely if ever in equilibrium state. The implication is that ecosystems have their own resilience and even though they are constantly affected by anthropogenic and natural factors, they can still provide adequate levels of services to society. What is emphasised in this paper is that at times the degradation can become so serious that the provision of services is severely compromised which can serve as one of several triggers for migrations. In addition, social, economic, cultural and political factors shape the relationship between society and the ecosystems of which it is part of and from which it extracts services. Thus ecosystem degradation, including desertification, is in itself due to a complex intermix of factors which can be targeted by concrete actions and policies to limit the anthropogenic and natural impacts.

4. The pull factor: socio-economic differences

As stated above there are many “pull” factors that can trigger the decision to migrate. In this brief discussion migrations due to persecutions are excluded as in these circumstances, looking for a safe-heaven is the only driver triggering the movement. The GCIM (2005) puts forward that perceived or actual differentials and disparities between regions or countries is one of the main reasons triggering migrations. Hatton and Williamson (2003) showed that different factors apply in different circumstances but highlight the roles of disparities in earning potentials at home or abroad, an individual’s compensating differential for remaining at home, the role of social

networks abroad, and demographic factors; they also highlight the importance of policies in facilitating or impeding migrations. Some of these factors can explain why around 60% of all recorded migrants are found in the wealthier countries of the world (GCIM, 2005). For example, the gap in per capita income between the ten wealthiest countries and the ten poorest has increased during the last half-century from a ratio of 30:1 in 1960, to 60:1 in 1990, to 80:1 in 2000; and the life expectancy in these countries was 78 years in the richest countries versus 45 in the poorest ones in 1998 (in van Ginkel, 2006). The pull factors are therefore as important as the push factors for certain categories of migrants and should be considered when dealing with environmental migrations.

5. Environmental migrations

The concepts of environmental migrations and refugees are not commonly accepted (e.g. UNU-EHS, 2005) and critics of the concept can use the argument that environmental degradation in general and desertification in particular are, in some cases, not as serious issues as depicted in much of the literature to criticise the concept (e.g. Black, 2001). They particularly use the (valid) argument that migrations have many root causes to dismiss the need for a specific category of migrations triggered by environmental deteriorations. The counter-argument is that environmental degradation is increasing, that global warming is scientifically proved and will increase pressure on ecosystems and thus, environmental degradation could become one of the major “push” factors in the future. Some scientists have attempted measuring the extent of environmental migrations worldwide. However, this is a complicated exercise for the very reason that in addition to environmental factors, there are also a number of social, economic and political factors which come into play and that these all interact with each other in a complex way (Döös, 1997). Annual migration figures estimated by Lutz, 1994 (cited by Döös, 1997), although they do not distinguish among drivers of migration, illustrate the magnitude and global scope of the movements. Quantifications are further complicated by the fact that environmental migrations are mostly internal (at least in an initial phase), or remain within the region, shown by the recent increasing number of migrants from Western Africa in Cap Verde (Jesus, 2006, personal communication). For example, the 2004 tsunami displaced some 500,000 people in Indonesia alone, many of whom are still internally displaced (IDP) (Müller, 2006). In New Orleans, Turner (2006) showed that for one particularly badly hit Parish, out of 68,000 inhabitants, only 8,000 had return close to a year after the event; from this we conservatively estimate that 200,000 persons may still be IDPs from the original population of New Orleans. Estimates of migration fluxes have been published and number at 135 million who could be at risk of being displaced as a consequence of severe desertification (Almeria Statement, 1994); or 25 million in 1995 with a possible doubling of that number by 2010 with a potential of 200 million due to global warming impacts (Myers, 2002, 2005). It is thus now estimated that there are more environmental refugees around the world than there are refugees from other categories. All these figures, their estimation methods and the underlying assumptions behind them are currently being debated.

It is not only scholars who argue that there is a link between environmental degradation and migrations. Following and International Year of Deserts and Desertification (IYDD) event in Montpellier, France (the Désertif'Actions conference), people from civil society also pointed out this relationship and their opinions were taken up in the French national press. This was the case for a representative of the Senegalese Prabioc association who stated that in desertified areas “farmers cannot anymore satisfy their

basic needs, move to cities, towards the coasts, or to developed countries¹” (our translation). A similar statement was made an NGO representative from Mali².

When dealing with the concept of environmental migrations, the question becomes: is there a specific need for a new category of migrant or refugee? The environment we shape is, by definition, in constant flux and as highlighted above, there is increasing evidence that the new equilibrium that ecosystems may reach through inherent and anthropogenic changes cannot sustainably supply society with required essential services. It is therefore likely that increased stresses on ecosystems will have direct and indirect impacts on societies which, when their coping mechanisms are overcome, will have no other option but to migrate, a permanent or temporary adaptation strategy. The likelihood of the environmental migrations increasing in the coming decades has been recognised by several organisations and events in the last couple of years, as well as by representative of not only national and international “lobbies” but also civil society and the scientific community. Examples are a press release of the United Nations University (see UNU-EHS, 2005); the Montpellier Appeal which emerged from the Désertif’Actions IYDD event which stated that land degradation “[...] leads to precariousness and poverty conditions, and to an increasingly large marginalisation which worsen migratory flows, political instability and economic losses” (Désertif’Actions, 2006); and the organisation of a specific IYDD conference on desertification and migrations in Almeria, Spain (October 2006) which builds on the 1994 international symposium on the same topic and held in the same location where the links between desertification and migrations had already been discussed (see Almeria Statement, 1994). The issue has become acute for many and particularly for small island state that are directly exposed to sea-level rise. This urgency can be illustrated by the fact that in August 2006, a meeting attended by representatives of several nations, NGOs and international organisations was held in the Maldives with the theme “Protocol on environmental refugees: recognition of environmental refugees in the 1951 Convention and 1967 protocol relating to the status of refugees” (Unpublished Working Draft of the Proposal prepared by Michael See).

The debate on environmental migrations and refugees is timely as the issue of migration and how it should be addressed internationally is currently being revisited by the United Nations system (UN, 2006). There are, at the moment no specific distinctions being made in terms the “push” or “pull” factors which generate migrations so environmental migrations are not recognised specifically. The chronology of events within the UN system was as follows (UN, 2006):

- Addressing the issue of migrations in a new light originated when it was acknowledged that international migrations were linked with development at the 1994 International Conference on Population and Development.
- In 2003, the General Assembly decided to hold a High-Level Dialogue in the Assembly in 2006 on the subject of international migrations and development after a period of close to ten years when consensus among Member States to organise a conference on the subject was not reached. The outcome of the dialogue was to be the identification of ways to maximise the development benefits of international migration and minimise its negative impacts.

¹ La constante avancée du désert est la cause oubliée des migrations africaines. Le Monde, 25 September 2006.

² La désertification produit des exodes massifs. Libération, 25 September 2006.

- In 2003, the Global Commission on International Migration was launched and one of its recommendations to the UN Secretary-General in 2005 was to establish a high-level inter-institutional group to ensure a more coherent and effective institutional response to the opportunities and challenges presented by international migration.
- In addition, the International Labour Conference adopted in 2004 a resolution requesting the International Labour Office to implement a plan of action on migrant workers.
- Following further consultations within the UN system and following the GCIM recommendation, the Secretary General established the Global Migration Group which contributes inputs to the Secretary General's report for the High-Level Dialogue.
- In January 2006 the Secretary-General appointed a Special Representative on International Migration and Development.
- The report of the Secretary-General for the High-Level Dialogue included a proposal to establish a consultative Forum to offer Governments a venue to discuss issues related to international migration and development.

When dealing with environmental migrations, we are still at the beginning of an unavoidably long process. Yet, the aim must be clear. It is to gain recognition in order to assist a forcefully emerging new category of migrants. While the multiple reasons and their respective weights case-by-case make it fairly difficult to assign individuals or group of migrants into well defined categories like political, economic, ethnic or even environmental migrants/refugees, there are potential sub-classes which may be useful to indicate the motivation to move and the urgency to receive assistance. It is therefore argued here that environmental degradation (with all its underlying socio-economic and political factors) can become a major push factor in the future. So concerning environmental-related mass movement of people we may distinguish between:

- Environmentally motivated migration;
- Environmentally forced migration, and;
- Environmental refugees.

This latter class may include also disaster refugees. While the environmentally motivated migrant “may leave” a steadily deteriorating environment in order to avoid the worse, the environmentally forced migrant “has to leave”. These two categories may imply the option to decide to stay or not to stay, or when to leave, though these questions are already part of the survival dilemma (Brauch, 2005). The distinction between environmentally forced migration and environmental refugees could be sought in the swiftness of necessary actions. The environmental refugees “flee” rather than “migrate”. Another distinguishing criterion could be sought in environmental assessment. Would it be possible to rehabilitate the degraded environment to undo migration, or should people be allowed to seek permanent refuge (and livelihoods) elsewhere? Clearly resettling villages which otherwise would be inundated by rising sea levels, or accepting farmers whose livelihood was destroyed by volcanic eruptions or irrevocable desertification need similar status and assistance than people fleeing from violence, war, ethnic cleansing or other harassment, irrespective whether they crossed a border or not. The authors argue that internationally agreed standards are needed to

identify these or similar sub-groups in order to devise appropriate strategies, measures and assistance programmes on how to assist those falling into the different categories. These standards could possibly be discussed within the emerging UN structures dealing with migrations.

It has been reported that individuals who could fall under the above environment-related categories have received assistance from UNHCR and other humanitarian agencies occasionally. It is to be noted that without recognition status and corresponding mandating of the respective aid organisations this assistance, based on human solidarity and compassion, would not be sustainable. In order to avoid looming human disasters at massive scale, institutional empowerment and funding are needed.

6. How to move forward?

Even critics of the concept of environmental migrants or refugees such as Black (2001) contend that should environmental refugees be included in a future international convention, the scientific and empirical basis of the fluxes and specific needs will require further elaboration. Similar points of view were elaborated in a brief review on the subject presented by Flintan (2001). No one can disagree with the need to address these issues, but the fuzziness of the concept as it stands now, and the difficulty in estimating number of people concerned and migration routes should not be a reason not to act and move forward with adequate policies. Lonergan and Swain (1999:2) put it best: "Although the estimates and projections of environmental refugees are based almost entirely on anecdotal evidence and intuitive judgements, it is important not to trivialize the role environmental change and resource depletion may play in population movement". It is this precautionary principle that is promoted here and which serves as the basis of the following five-pronged approach to address the issue head-on:

- **Science:** put in place programmes to allow a better understanding between the cause-effects mechanisms between degradation of ecosystems and social systems. This echoes ideas put forward in 1994 at the end of the International Symposium on Desertification and Migrations in Almeria (see Almeria Statement, 1994). In addition, develop proper definitions of environmentally motivated and/or forced migrations, environmental migrant/refugee. Provide long-term, sustained funding for research.
- **Awareness:** raise knowledge-based public and political awareness of the issue and its environmental, social and economic dimensions.
- **Legislation:** put in place a framework of recognition of environmental migrants such as in a Convention or in parts of Intergovernmental Environmental Treaties.
- **Humanitarian aid:** empower the relevant entities in the United Nations system and other major assistance organisations to provide aid to environmental refugees.
- **Institutional:** devise concepts and put in place institutions that are able to assist the flux of forced environmental migrants/refugees.

These actions should be implemented with all other envisaged actions to address directly the multi-dimensional problem of environmental degradation itself. UNU and its topically relevant and interested Research and Training Centres and Programmes can certainly not address all the points listed above but can contribute to several components

in research and policy development jointly with other UN agencies and the international science community dealing with the subject.

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