

## ENVIRONMENTALLY DISPLACED PEOPLE

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### Summary

Persons who are displaced within their country of habitual residence or who have crossed an international border and for whom environmental degradation, deterioration or destruction is a major cause of their displacement, although not necessarily the sole one, belong to environmentally displaced people. These persons are refugees in the real sense of the word, but their situation does not coincide with the legal definition of “refugee.” Therefore, the term “environmental refuge” which is common in the literature, is not used in this paper.

Primary causes for environmental displacements include natural events necessitating disaster relief such as earthquakes, volcanic eruptions and floods. Human-made causes are by far the most underlying causes of the displacements. They include depletion of water, soil and other resources and/or environmental degradation, dam construction, nuclear testing, hazardous waste site construction, and industrial accidents. Global warming necessitates specific attention. Secondary causes (which in part result from the primary ones) include population pressure, diseases, malnutrition and poverty.

In discussing environmentally induced displacements, it is important to grasp the underlying mechanisms. Environmental displacements are seldom caused by one event. Rather they are a response to multi-factorial stresses. Moreover, many of the causes are interlinked. Water shortage for example results in threatened harvests, famine, disease, poverty and social marginalization. This type of environmental degradation spirals is the

real motivation of a population's decision to move, as their homeland cannot sustain them any longer.

Action responses to environmentally induced migration have to do both with prevention and mitigation. At the prevention and preparedness side, environmental impact assessment, strategic environmental assessment, implementation of international environmental conventions and national environmental plans are among the most important instruments. Relocation policies, resettlements, technical improvements, early warning systems, and local ownership of mitigating actions are essential elements of the mix of instruments which is necessary to help environmentally displaced people with rehabilitation and their eventual possible return to their homeland whenever possible.

At this moment, their number is estimated at 25 million and the trend is increasing. More research is needed to understand the fundamental causes and mechanisms driving environmental displacements. But probably the main problem these people actually face is a lack of official and legal recognition. This does not only hamper the formulation of more intensive policies to manage the problem, but also makes their presence prone to the generation of excuses to justify the outbreaks of ethnic tension and civil disorder. This shows how closely related environmental displacements and the broader concept of environmental security are. It equally shows that international recognition of environmentally displaced people as a vulnerable group that needs special assistance may now be seen to be desirable.

## **1. Introduction**

An impressive number of examples worldwide indicate that people are forced to leave their land because it can no longer support them.

Haiti is an impressive example of this causal relation between environmental degradation and migration. In this country, deforestation, consequent erosion and population growth, has depressed per capita grain production to half what it was in the middle 1950s. Haitians now get just 80 per cent of their minimum nutritional needs. Added to that are the chronic political unrests and injustice of the previous regime. It is therefore understandable that 1.3 million Haitians have left their island during the last quarter of the twentieth century. Most have crossed borders and went to other Caribbean islands and the United States.

Unequal distribution of water resources in the Middle East reflects another aspect of the same phenomenon. In the case of the West Bank, population growth in the Jordan River basin increased demand for the scarce supply of fresh water. The over pumping of aquifers depleted and degraded the water supply, and salt intrusion from the Mediterranean affected some aquifers. As 40 percent of Israel's groundwater originated from the former Occupied Territories, the former sought to protect its water supply by limiting its use by both Jewish settlers and Arabs during the occupation of the West Bank. However, there was a marked differential in access: stringent restrictions on water use by Arabs meant that settlers consumed about four times as much water per capita as Arabs. Combined with other Israeli restrictions on Palestinian agriculture, this

situation encouraged many West Bank Arabs to abandon farming and to move to towns. The migrants became either unemployed or day laborers within Israel.

In recent years the Aral Sea has lost 70% of its volume and has become polluted with pesticide residue and industrial pollutants. With the almost complete collapse of the Aral Sea fishing industry, sedentary fishermen have become “nomadic fishermen,” migrating during many months from their original homes. Of the croplands around the Aral Sea, 78% of the irrigated areas are now salinized due to years of over-irrigation. Negative environmental impacts are sub-regional and interregional, as environmental displacement from one region affects other areas as well. Pollution, decreased sea levels, and salinized lands are now considered irreversible processes. With ever fewer jobs in agriculture, fishery and industry, some three million people have been uprooted from the Aral Sea region.

Senegal, in West Africa, has fairly abundant agricultural land, but much of it suffers from wind erosion, loss of nutrients, salinization due to over-irrigation, and soil compaction caused by intensification of agriculture. Mauritania borders Senegal in the North. Except for the Senegal River valley, along its southern boarder, and a few oases, Mauritania is for the most part arid desert and semiarid grassland. During the 1970s, the prospect of chronic food shortages and a serious drought period encouraged the region’s governments to build a series of dams along the Senegal River, a rich agricultural region. Land values in the basin rose, since enhanced irrigation was expected to generate high returns from agriculture. To seize control of this valuable resource, the Islamic Mauritanian government, controlled by Moors of Arab origin, abrogated the rights of black Mauritians to farm, herd and fish along the Mauritanian side of the river. In 1989, violence erupted after Mauritanian border guards killed two Senegalese. A spiral of retaliatory attacks took place against Moors living in Senegal and blacks living in Mauritania. Hundreds died and thousands became refugees in the violence that followed.

Environmental scarcity in Pakistan’s rural areas—in particular, declining per capita availability of cropland and water—has increased rural-urban migration. The rural migrants settle on the least desirable land-areas that frequently flood and lack basic infrastructure. Environmental causes are not the only ones causing displacements in and around the country. Since 1979, Pakistan has been playing host to over 3 million refugees from Afghanistan. At the withdrawal of Soviet troops from Afghanistan, old caseload refugees have begin to repatriate, but it has also brought new waves of Afghan refugees fleeing into Pakistan. In all, fourteen different categories of refugees and mass migrants can be identified in Pakistan. It is most difficult to distinguish them accurately. Urban growth averages about 4 to 5 percent per year. Urban services are unable to keep up with urban growth. Sanitation services are often non-existent. Public health has been affected: waterborne diseases due to poor sanitation account for 25 to 30 percent of total cases in public hospitals in Karachi. The migration contributes to higher grievances within marginal groups in Pakistan’s major cities and aggravates tensions and violence among diverse ethnic groups.

Ranging from the Amazon Basin to northern Saskatchewan, from the tropical rain forests of the Amazon, over sub-Saharan Africa, to Southern Asia, exploitation of

natural resources including gas, oil, hydropower, timber, minerals, and other mega industrial projects by multinational corporations and governments has devastated, dislocated and decimated numerous locals, often indigenous tribal communities.

These examples illustrate the impact and the dimensions of environmental security and displacement. Moreover, they show key characteristics of the problem:

- Environmental degradation is a driving factor in causing refugees, both within and between countries.
- Environmental degradation in relation to migration is often the consequence of multiple factors.
- Seldom does the environment act alone. Environmental causes precede, amplify or underlie other causes of refugees: political and/or religious oppression, economic collapse, military and/or civil terror and/or war.
- Environmental security threatens not only human existence but also the peace and stability of regions around the world, especially (but not only) in poor countries.

Environmental security and displacement have been addressed in several international documents. Both the Brundtland report and the UN Conference on Environment and Development in Rio de Janeiro, 1992, pointed to environmental degradation as an important underlying cause for mass migration. Agenda 21 calls for increased research to identify “the major migration flows that may be expected with increasing climatic events and the cumulative environmental change that may destroy people’s local livelihoods.” Environmental degradation is identified as one cause for the movement of people by the Programme of Action of the UN International Conference on Population and Development in Cairo, 1994.

This paper aims at introducing the elements underlying the problems faced by environmentally displaced people. A definition section clarifies the basic concepts, the relationship between environmental displacement and environmental security, and the relation with related concepts such as environmental justice. The paper analyses and dissects the causes and mechanisms of environmental displacement and lists the main possible measures and policy responses.

Finally the paper highlights the limitations in the actual knowledge to fully grasp this complex and most interdisciplinary problem in the environmental arena.

## **2. Definitions**

Environmental displacement is closely interlinked with environmental security. Displacement can be the cause or the result of a lack of environmental security. People may be forced to leave a region because the environment does not allow a safe living anymore. Moreover, it is possible that the displacement of people may eventually cause environmental insecurity both in the region of origin and in the new settlement area.

Environmental security is a state in which an ecosystem is able to support the healthy pursuit of livelihoods of the people living in that system. An environment can by itself be naturally insecure; for example, areas that are prone to natural disasters, such as

floods, cyclones and volcanic activity. Moreover, there are human impacts that result in environmental changes, such as industrial pollution, or over-exploitation of natural resources. Special attention should be given to global environmental changes such as desertification, biodiversity and climate changes. Human actions may also lead to sudden and disastrous environmental disruption. This is for example the case when constructing large infrastructures such as dams, transport corridors and industrial accidents. Both human-made and natural environmental security may interact and mutually reinforce each other. For instance, when natural floods in the lowlands are exacerbated by the consequences of large-scale deforestation in the upper regions.

Lack of environmental security does not necessarily lead to displacement of people. There are many examples of populations who coped with difficult environmental conditions and adjusted to possible dangers from natural disasters. If resources such as water become scarce, they may be used more efficiently (e.g. through integrated water management) or be replaced by substitutes (e.g. by replacing surface water by groundwater). Soil degradation can be prevented or slowed down, by using appropriate agricultural techniques. But next to the environmental elements, there are other factors that make people vulnerable to the lack of environmental security. These factors include economic conditions such as ownership, income, the social network, health, education and the family situation. When the combination of environmental, economic and social factors is too unfavorable, people might decide to migrate. If the environmental component is a major factor in their decision to move out, they are referred to as environmentally displaced persons. These are persons who are displaced within their country of habitual residence or who have crossed an international border and for whom environmental degradation, deterioration or destruction is a major cause of their displacement, although not necessary the sole one.

During the 1980s and the early 1990s, environmentally displaced persons were called environmental refugees. “Refugee” is however a term which has a strong legal connotation. “Refugee” is an international term, defined in section 6B of the 1950 statute of the Office of the United Nations High Commissioner for Refugees (UNHCR), and in article 1 of the United Nations Convention of 1951 relating to the Status of Refugees. In these documents a refugee is “any person who is outside the country of his former habitual residence, because he has or had well-founded fear of persecution by reason of his race, religion, nationality or political opinion, to avail himself of the protection of the government of the country of his nationality or, if he has no nationality, to return to the country of his former habitual residence.” Environmental refugees consequently refers then to the people who are being forced to leave their homes; to retreat after losing battles with their environment, both natural, such as droughts, floods, cyclones and earthquakes, and permanent human-caused changes, such as dams, the slow degradation of farmland, the remnants of war and from industrial accidents.

A more recent, concise definition has been provided by Myers. Environmental refugees are persons who no longer gain a secure livelihood in their traditional homelands because of environmental factors of unusual scope, notably droughts, desertification, deforestation, soil erosion, water shortages and climate change, also natural disasters such as cyclones, storm surges and floods. In the face of these environmental threats,

people feel they have no alternative but to seek sustenance elsewhere, whether within their own countries or beyond and whether on a semi-permanent or permanent basis. However in the strict sense of the interpretation “environmental refugees” do not meet the “persecution test.” Also, in contrast with environmentally displaced persons, environmental refugees are defined as people crossing national borders. Environmentally displaced people are sometimes (but not always) also seen as voluntary migrants: persons who for economic, social, cultural, personal or other reasons leave voluntary the country of their habitual residence. Next to people pressed by environmental reasons, voluntary migrants include poverty migrants in search of better economic and social opportunities. This is not completely fair. A key feature of environmentally displaced persons is that they move because they have no other choice.

To avoid confusion with the legal definition of “refugees” provided above, the term “environmental refugee” is avoided. More and more frequently “environmentally displaced people” or “environmentally displaced persons” replace it. This is not only to a semantic discussion. The use of “environmentally displaced people” also includes that there is no legal recognition on this ground under the 1951 Convention relating to the Status of Refugees.

As environmental displacements are in part caused by exploitation of natural resources by mega industrial projects, environmentally displaced people face also environmental injustice. Environmental injustice implies any undue imposition of environmental burdens on innocent bystanders or communities that are not parties to the activities generating such burdens. Environmental inequity involves a skewed (or disproportionate) distribution of environmental risks by nationality, race, ethnicity, or class. These concepts are intertwined with the concept of environmental racism, which suggests a deliberate targeting of the communities of specific racial, ethnic, tribal, or cultural groups as depots for hazardous waste, environmentally and health-threatening products, and other forms of pollution. Both environmental injustice and environmental racism are promoted through systematic exclusion of minority groups in vital environmental policy decisions. Minority status, lower socioeconomic status, powerlessness, and other conditions of marginalization have been identified as major factors influencing the extent of environmental injustice and human rights repression. Localizing the cause of environmentally displaced persons in the “environmental injustice” framework links up the discussion of part of them with legal frameworks and international legal recognition of the problem.

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## Bibliography

Adeola F. O. (2000). Cross-national environmental injustice and human rights issues. *American Behavioral Scientist* **43**, 686–706. [This article focuses on the issues of environmental injustice and human rights violations across nations. It links up patterns of the transnational toxic waste trade and natural resource exploitation with environmental injustice in general and environmentally induced migration in particular.]

El-Hinnawi E. (1985). *Environmental Refugees*, 44 pp. Nairobi: United Nations Environment Programme. [A classical introduction to the problem of environmentally displaced persons.]

Hens L. and Boon E. K. (1999). Institutional, Legal, and Economic Instruments in Ghana's Environmental Policy. *Environmental Management* **24**(3), 337–351. [This paper provides an overview of key environmental problems in Ghana. It entails an illustrative section on environmental displacements both in the north of the country, where desertification is a driving actor and in the south, where people in the city of Keta are expelled from their houses by coastal erosion.]

IOM (International Organization for Migration) (1996). *Environmentally-Induced Population Displacements and Environmental Impacts Resulting From Mass Migrations*, 128 pp. Geneva: IOM. [Proceedings of an international symposium jointly organized by the United Nations High Commissioner for Refugees (UNHCR), the International Organization for Migration (IOM) and the Refugee Policy Group (RPG). The Proceedings over-view almost all recent trends of the discussion. They deal both with environmentally induced population displacements and environmental impacts resulting from mass migrations.]

Leiderman S. M. (2000). *Comprehensive Portfolio on Environmental Refugees and Ecological Restoration*. Durham: University of New Hampshire. [This collection includes numerous research papers, reports, conference transcripts, lectures, analyses, proposals and bibliographies produced from 1992 through 1999, during doctoral work. The work of Leiderman is trend setting for predictive research on environmentally displaced people.]

Meyers N. (1995). *Environmental Exodus: An Emergent Crisis in the Global Arena*, 214 pp. Washington, DC: Climate Institute. [This report takes a hard look at the developing environmental crisis that is causing displacements. It is widely considered as a scientific standard work in the discussion on environmentally induced shifts in population in the world.]

OECD/DAC (Organization for Economic Collaboration and Development/Development Assistance Committee) (1996). In depth session on environmental security and displacement. Paris, France. [Collection of papers supporting an in-depth discussion the DAC working party on development assistance and environment spend on the issue up October 28<sup>th</sup>, 1996. The discussion focused on the increasing calls for international interventions in form of humanitarian assistance and rehabilitation programs related to deteriorating environmental security and increasing numbers of environmentally displaced persons.]

## Biographical Sketch

**Luc Hens** graduated as a Biologist and later received his Ph.D. in Biology from the Free University of Brussels (Belgium) where he is at present Professor and Head of the Human Ecology Department. The department organizes a “Master degree in Human Ecology” which is targeted towards an international audience. Hens also lectures at the Technical University of Sofia (Bulgaria). His specific area of research concerns the elucidation of interdisciplinary instruments for sustainable development. This entails fundamental research on environmental impact assessment, life cycle analysis and environmental care systems. Professor Hens acts as an expert in environmental policy in several councils in Belgium. He is the European editor for the ‘International Journal on Environmental Pollution’ and for the journal ‘Environment, Development and Sustainability’. Luc Hens published 63 papers in international peer reviewed journals and is the author, co-author or co-editor of 26 books in the broad area of environmental management and human ecology.