

ENVIRONMENTAL REFUGEES:
A GROWING PHENOMENON OF THE 21ST CENTURY*

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Introduction

There is a new phenomenon in the global arena: environmental refugees. These are people who can no longer gain a secure livelihood in their homelands because of drought, soil erosion, desertification, deforestation and other environmental problems, together with associated problems of population pressures and profound poverty. In their desperation, these people feel they have no alternative but to seek sanctuary elsewhere, however hazardous the attempt. Not all of them have fled their countries, many being internally displaced. But all have abandoned their homelands on a semi-permanent if not permanent basis, with little hope of a foreseeable return.

In 1995 these environmental refugees totalled at least 25 million people, compared with 27 million traditional refugees (people fleeing political oppression, religious persecution and ethnic troubles). The environmental refugees total could well double by 2010 (though there is no good estimate of today's total). Moreover, it could increase steadily for a good while thereafter as growing numbers of impoverished people press ever harder on over-loaded environments. When global warming takes hold, there could be as many as 200 million people overtaken by disruptions of monsoon systems and other rainfall regimes, by droughts of unprecedented severity and duration, and by sea-level rise and coastal flooding.

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Of the 25 million environmental refugees in 1995, there were roughly five million in the African Sahel, where a full ten million people had fled from recent droughts, only half returning home. Another four million, out of eleven million refugees of all types, were in the Horn of Africa including Sudan. In other parts of Sub-Saharan Africa, where 80 million people were considered to be semi-starving due primarily to environmental factors, seven million people had been obliged to migrate in order to obtain relief food. In early 2000 Sudan featured eight million people who were officially considered at risk of starvation, with another six million in Somalia and three million in Kenya, plus several million others in other countries. A sizeable though undocumented proportion of these could be characterized as environmental refugees.

While Sub-Saharan remains the prime locus of environmental refugees, there are sizeable numbers in other regions and countries. In China with its 120 million internal migrants, at least six million deserve to be regarded as environmental refugees, having been obliged to abandon their farmlands due to shortages of agricultural plots in the wake of decades of population growth. In Mexico there are one million new environmental refugees each year. Some become assimilated in cities, and a few return home, leaving a cumulative total, as a bare minimum in 1995, of two million. Finally there are those people displaced involuntarily by public works projects, notably large dams, and increasing by ten million every year (with a cumulative total of 50 million in just China and India). Most of them resettle elsewhere, but the number remaining in a refugee-like situation totals one million.

The 1995 estimate of 25 million environmental refugees is cautious and conservative. Scattered throughout the developing world are 135 million people threatened by severe desertification, and 550 million people subject to chronic water shortages. While certain of these people will have been included in the 25 million figure, many could well have been driven to migrate without being counted as environmental refugees.

Of the nearly one billion additional people added to the global population during the 1990s, a good proportion will have been among communities with a cash income of \$1 per day or less. They include the people most likely to be subsisting, or rather struggling to survive, in environments too wet, too dry or too steep for sustainable agriculture. In Sub-Saharan Africa, these

environments will have needed to support an extra 150 million people during the 1990s, and a similar total in India.

Poverty serves as an additional "push" factor associated with the environmental problems displacing people. Other factors include population pressures, malnutrition, landlessness, unemployment, over-rapid urbanisation, pandemic diseases and faulty government policies, together with ethnic strife and conventional conflicts. In particular, it is sometimes difficult to differentiate between refugees driven by environmental factors and those impelled by economic problems. In certain instances, people with moderate though tolerable economic circumstances at home feel drawn by opportunity for a better livelihood elsewhere. They are not so much pushed by environmental deprivation as pulled by economic promise. This ostensibly applies to many Hispanics heading for the United States. But those people who migrate because they suffer outright poverty are frequently driven also by root factors of environmental destitution. It is their environmental plight as much as any other factor that makes them economically impoverished. This generally applies to those refugees who migrate to areas where economic conditions are little if any better than back home, as is the case with many people who migrate within Sub-Saharan Africa and the Indian subcontinent. In this instance, with poverty and "life on the environmental limits" as the main motivating force, it matters little to the migrants whether they view themselves primarily as environmental or economic refugees.

In short, there is a gradient of factors at work. At one end are those people who are driven by environmental problems outright, and at the other end are economic migrants who are voluntary opportunists rather than refugees. In between is a grey zone where one category sometimes tends to merge into the other. The assessment to date is no more than a first-cut effort, albeit preliminary and exploratory, to come to grips with a prominent and fast-growing problem that is all too real for those who endure it, however much the purists may argue about final definitions.

On top of all these sub-problems is the lack of official recognition, whether on the part of governments or international agencies, that there is an environmental refugee problem at all.

Future Outlook

How many environmental refugees can we realistically anticipate in the future--or rather, how many people are likely to become vulnerable to environmental problems that could force them to migrate? Let us consider the outlook for the year 2010. The population of developing countries is projected to have grown from 1995 by well over one billion people, a 28-percent increase in just 15 years. Sub-Saharan Africa's total will have expanded by more than 250 million, a 45-percent increase, and the Indian subcontinent's by 380 million, 32 percent. The numbers of people in absolute poverty are predicted to swell from 1.3 billion to 1.6 billion. The 135 million people affected by severe desertification could well increase to 180 million. The populations of water-short countries are expected to surge from 550 million to more than one billion. If the 1990-onwards "plateauing" of crop yields continues, there will be more, and more widespread, shortfalls in food production (especially in Sub-Saharan Africa and the Indian subcontinent), while international tradable stocks will be increasingly unable to keep up with fast burgeoning demand.

The 25 million environmental refugees in 1995 had mostly become obliged to migrate since 1980, when their numbers first started to climb rapidly. In light of patterns and trends of environmental decline and associated problems such as spreading poverty and population increase, it is probable that by 2010 there will be another 25 million such refugees on top of the 25 million in 1995 if only because the impelling factors will continue to be at least as prominent for the communities concerned. (This supposes too that there will be few preventive measures of sufficient scope.) In fact, the increase could well be more than another 25 million because of increasingly degraded environments coupled with growing numbers of impoverished people.

For a specific instance of the problem's scope to expand, consider the prospect for Sub-Saharan Africa until the year 2010. This is already the region with half the world's traditional refugees and at least a similar proportion of environmental refugees. Despite some advances in soil conservation (Kenya, Ethiopia), smallscale agriculture (Nigeria, Zimbabwe), reforestation (Tanzania, Malawi), anti-desertification (South Africa), and population planning (Kenya, Zimbabwe, Botswana), the outlook is unpromising. The region's population is projected to increase to 830 million people, 45 percent more than in 1995. Severe desertification may well affect more than 100 million people, half as many again as today. Ten countries are expected to be experiencing chronic water shortages or even acute water scarcity, with collective populations

totalling well over 400 million people. Without greatly expanded efforts to tackle the region's lack of development, per-capita GNP will probably stagnate in real terms at around \$400, or little higher than in 1970.

Most important of all will be the region's incapacity to feed itself. Some 20 countries with a projected population of 440 million are expected to experience up to 25 percent shortfall in food supplies, and a further eight countries with a projected 75 million people face more severe deficits. The total of malnourished people will continue to grow, with at least 100 million destitutes obliged to live for the most part off imported food. The food deficit could well rise to as high as 30 million tonnes. Because of its exceptional poverty the region will be increasingly unable to compete in the global grain market. Food aid worldwide in 1995 was only 7.5 million tonnes, enough to make up the diets of only 10 million semi-starving people.

In addition, there will be problems of global warming. Due largely to sea-level rise and flooding of coastal-zone communities, but also to increased droughts and disruptions of rainfall regimes such as monsoonal systems, global warming could threaten large numbers of people with displacement by 2050 or earlier. Preliminary estimates indicate the total of people at risk of sea-level rise in Bangladesh could be 26 million, in Egypt 12 million, in China 73 million, in India 20 million, and elsewhere, including small island states, 31 million, making a total of 162 million. At the same time, at least 50 million people could be at severe risk through increased droughts and other climate dislocations.

Concerns for Environmental Security

All in all, the issue of environmental refugees promises to rank as one of the foremost human crises of our times. To date, however, it has been viewed as a peripheral concern, a kind of aberration from the normal order of things--even though it is an outward manifestation of profound deprivation and despair. While it derives primarily from environmental problems, it generates myriad problems of political, social and economic sorts. As such, it could readily become a cause of turmoil and confrontation, leading to conflict and violence. Yet as the problem becomes more pressing, our policy responses fall further short of measuring up to the challenge. To repeat a key point: environmental refugees have still to be officially recognized as a problem at all.

At the same time, there are limits to host countries' capacity, let alone willingness, to take in outsiders. Immigrant aliens present abundant scope for popular resentment, however unjust this reaction. In the wake of perceived threats to social cohesion and national identity, refugees can become an excuse for outbreaks of ethnic tension and civil disorder, even political upheaval. This is already the case in those developed countries where immigrant aliens increasingly prove unwelcome, as witness the experience of Haitians in the United States and North Africans in Europe. Almost one third of developed countries are taking steps to further restrict immigrant flows from developing countries. Yet measures to relieve the plight of refugees of whatever kind have drastically diminished in relation to the growing scale of the problem. Although the annual budget of the United Nations High Commissioner for Refugees was recently boosted to \$1.3 billion, the agency is increasingly unable to supply food and shelter for refugees of traditional kind alone, much less to invest in rehabilitation or repatriation of these refugees. Meantime the world's refugee burden is borne primarily by the poorest sectors of the global community. In 1998 the twenty countries with the highest ratios of official (traditional) refugees had an annual per-capita income of only \$750.

Policy Options

There is much scope for preventive policies, with the aim of reducing the need to migrate by ensuring an acceptable livelihood in established homelands. First of all, we need to expand our approach to refugees in general in order to include environmental refugees in particular. We cannot continue to ignore environmental refugees simply because there is no institutionalised mode of dealing with them. If official standing were to be accorded to these refugees, this might help to engender a recognised constituency for e.g. those 900 million people who endure desertification, four million of whom have become environmental refugees in the Sahel alone. While desertification entrains costs of \$42 billion a year just through the loss of agricultural produce, the United Nations' Anti-Desertification Action Plan would cost no more than \$22 billion a year. Yet the amount subscribed so far is less than a few billion, ostensibly on the grounds that arid-land dwellers have no constituency and hence lack political leverage.

Secondly, we need to widen and deepen our understanding of environmental refugees by establishing the root causes of the problem--not only environmental causes but associated problems such as security concerns, plus the interplay of the two sets of forces. There are many conceptual

grey areas as concerns proximate and ultimate causes, the contributory roles of population pressures and poverty, the linkages to ethnic tensions and conventional conflict, and so forth. Suppose, for instance, there had been a better understanding and hence a better anticipatory response on the part of the Philippines government when the agricultural frontier closed in the country's lowlands during the late 1980s, bringing on a sudden increase in landlessness and an upsurge of migration into steep uplands in search of land. The problem could have been somewhat relieved through before-the-event measures to redistribute existing farmlands, to improve rural infrastructure, and to supply more off-farm employment, thereby reducing the need to migrate out of the lowlands.

Consider too the root causes of famine. If a famine has been human-made, it can be human-unmade, whereas natural factors can only be managed and accommodated. Just as the recurrent droughts in Sub-Saharan Africa cannot all be blamed on climate, so the recurrent famines cannot all be blamed on drought. Drought has often served to trigger famines by disrupting the social, economic and political processes that would normally ensure sufficient access or entitlement to food.

Probably most important of all is that there can be little advance except within an overall context of what has come to be known as sustainable development. This applies notably to reliable access to food, water, energy, health and other basic human needs--lack of which is behind many environmental refugees' need to migrate. In big picture terms, sustainable development represents a sound way to pre-empt the environmental refugee issue in its full scope over the long run. As a prime mode to tackle the issue, then, there would be a handsome payoff on investment to foster sustainable development in developing countries through greater policy emphasis on environmental safeguards, together with efforts to stem associated problems such as poverty, population and landlessness.

However, only select parts of sustainable development measures address the particular problem of environmental refugees. Specially pertinent, for example, would be the Anti-Desertification Action Plan as applied to the Sahel and arid sectors of the Horn of Africa, both being sources of large numbers of environmental refugees, whether present or prospective. Also warranting closely targeted responses are food-short regions within Sub-Saharan Africa and the Indian subcontinent.

Much could be achieved too through better targeting of foreign aid. The annual budget of the main source of multilateral aid, the United Nations Development Programme, is not so very much greater than that of the United Nations High Commissioner for Refugees (\$1.3 billion in 1995)--meaning that the United Nations' main response in this regard tends to be rather reactive than proactive. Worse, the ten developing countries with well over two-thirds of the world's "poorest of the poor" receive only one third of foreign aid--and it is impoverished communities that serve as the source of most environmental refugees. India has 27 percent of all people in absolute poverty worldwide, yet it receives only five percent of total foreign aid. Were foreign aid to be more closely directed at impoverished people in the main countries and regions concerned, it could help to relieve the problem while it is still becoming a problem, i.e. before it becomes entrenched.

There is much too that developing countries themselves can do, and at no great cost. According to UNICEF (2000), to eliminate deaths from famine would cost little more than \$0.5 billion per year; to cut malnutrition among women and children (who make up a disproportionate share of environmental refugees), less than \$2 billion; and to reduce hunger among the poorest households, little over \$6 billion. All of these measures would help to reduce prime pressures generating environmental refugees. The total cost would be less than \$9 billion, or \$7 for each of the 1.3 billion people in absolute poverty--these being the communities that are a main source of environmental refugees. By contrast, developing countries spend an annual average of \$40 per citizen on military activities. In 1999 Ethiopia assigned 13 percent of GDP to this purpose, four times the global average, even while it featured some of the largest numbers of environmental refugees in proportion to population size.