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Environmental refugees: myth or reality?

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Introduction

As the UN Refugee Convention passes its 50th anniversary, the nature and scope of the ‘international refugee regime’ continues to be a matter of debate. The last decade has seen a number of arguments to extend the regime, and/or the Convention. Most recent amongst these is the growing consensus that ‘internally-displaced persons’ (IDPs) should be brought under some form of international protection and/or assistance (Holbrooke, 2000). Another strong group of candidates for inclusion has been those displaced by development projects (Cernea and McDowell, 2000).

This paper, though, is concerned with a third group, who although their case for consideration has been somewhat sidelined in recent years, nonetheless represent an important group of interest to many policy-makers at international level: ‘environmental refugees’.

Estimates of the number of ‘environmental refugees’ in the world vary widely, as do definitions and typologies of such flows. The term was first popularised by Lester Brown of the Worldwatch Institute in the 1970s, but perhaps the most quoted contributions on the subject are those of El-Hinnawi (1985) and Jacobson (1988). The latter’s estimate of 10 million environmental refugees has been repeated by numerous authors, albeit without independent verification of its accuracy.

More recently, Myers and Kent (1995, 18) have described environmental refugees as ‘persons who no longer gain a secure livelihood in their traditional homelands because of what are primarily environmental factors of unusual scope’. Myers (1996) has suggested the total number of environmental refugees may be as high as 25 million, putting this group numerically well ahead of the ‘political’ refugees currently of concern to UNHCR. Nonetheless, the term has been vigorously criticised by, amongst others, McGregor (1993) and Kibreab (1994) for being poorly defined and legally meaningless and confusing.

This paper seeks to go further in questioning the value of international policy-makers focusing on ‘environmental refugees’ as a significant group of migrants, deserving of the world’s attention. It is argued that although environmental degradation and catastrophe may be important factors in the decision to migrate, and issues of concern in their own right, their conceptualisation as a primary cause of forced displacement is unhelpful and unsound intellectually, and unnecessary in practical terms. Particular reference is made to three categories of supposed ‘environmental refugees’: those fleeing ‘desertification’; those displaced (or potentially displaced) by sea level rise; and victims of ‘environmental conflict’. Following on from this, possible reasons for focusing on ‘environmental refugees’ as a policy strategy are subjected to critical scrutiny.

Environmental change and environmental refugees: the evidence

An initial difficulty in dealing with ‘environmental refugees’, or ‘environmental migrants’, is that there are perhaps as many typologies as there are papers on the subject. El-Hinnawi (1985) and Jacobson (1988) started with three sub-categories of environmental refugee, namely temporary displacement due to temporary

environmental stress; permanent displacement due to permanent environmental change; and temporary or permanent displacement due to progressive degradation of the resource base. In contrast, IOM/RPG (1992) drew distinctions between emergency vs. slow-onset movements, temporary, extended and permanent movements, and internal and international movements. Suhrke (1993) divided her discussion into migration stimulated by deforestation, rising sea levels, desertification and drought, land degradation, and water and air degradation, before proceeding to identify environmental pressure points at which the combination of such factors establishes a susceptibility towards environmental migration.

Trolldalen *et al.* (1992) distinguished between refugees from natural disasters; degradation of land resources; involuntary resettlement; industrial accidents; the aftermath of war; and climatic changes. More recently, the ball returned to IOM (1996), which used a six-fold division similar to that of Trolldalen *et al.*, but also drew an overall distinction between ‘natural’ and ‘man-made’ causes.

Whatever the precise definition or number of ‘environmental refugees’, a common feature of the literature is to talk of ‘millions’ of displaced people, and their dramatic impact on host regions, such that regional security is threatened. The image is one of mis- or over-use of the environment leading to progressive decline in the resource base, and possibly contributing to further dramatic (and unintended) environmental collapse. Environmentalists and conflict specialists see common cause in discussion of ‘environmental refugees’; even if the linkages between environmental change, conflict and refugees remain to be proven. It is the purpose of the first part of this paper to examine the evidence for such linkages.

At first glance, the data available on environmental refugees appears quite impressive. A number of areas of the world are cited by a range of authors as being affected by environmentally-induced migration, ranging across Asia, Africa and Latin America. In *Ultimate security*, Myers (1993d, 189) starts a chapter on the potential for displacement due to sea-level rise (see below) with concern about the plight of Haitian boat people, ‘abandoning their homelands in part because their country has become an environmental basket case’.

Homer-Dixon (1994, 22) draws, amongst other examples, on the evidence from South Asia, where the piecing together of demographic information and experts’ estimates leads him to conclude that Bangladeshi migrants ‘have expanded the population of neighbouring areas of India by 12 to 17 million’ over the last forty years, whilst ‘the population of the state of Assam has been boosted by at least seven million’. El-Hinnawi (1985) and Jacobson (1988) cite additional examples of environmental refugees from across the Sahel and the Horn of Africa, as well as the Soviet Union and the United States.

However, despite the breadth of examples provided in the literature, the strength of the academic case put forward is often depressingly weak. Taking first Homer-Dixon’s example of migration from Bangladesh to India, caused by ‘environmental scarcity’, it is something of a surprise to find that, even in his own article, a number of other explanations for migration vie with that of environmental degradation. Thus migration is also associated also with rules on land inheritance, the system of water

management in Bangladesh, the standard of living in India, and the encouragement of migration by some Indian politicians eager to gain new voters.

At the same time, the source of Homer-Dixon's demographic information (Hazarika, 1993) casts some doubt on the statistics too - in this case, between 12 and 24 million such migrants. For example, Hazarika's estimate of migration to Assam comes not from any direct measure, but from a comparison of the 1951 and 1991 Assam census figures, adjusted for the population growth rate in 1951, which shows a notional excess population. Yet this increase could be accounted for in a number of ways, with likely candidates including: a rise in the population growth rate after 1951; under-counting in 1951 (eminently plausible in a remote region); or over-counting in 1991 (also eminently plausible given the link between population size and allocation of government resources).

Other accounts of 'environmental refugees' are little better. A search through the references cited in another recent review paper by Ramlogan (1996) reveals little concrete evidence either. Thus for migration from 'natural disasters', we are pointed again to work by Hazarika (1993), as well as to Mattson and Rapp (1991), Sanders (1990-91) and an unspecified report from the United States Embassy in Addis Ababa. Yet Mattson and Rapp are respectively a climatologist and a geomorphologist, who merely state that 'refugee migration is linked to drought and famine' rather than demonstrating the linkage; Sanders indiscriminately describes as 'environmental refugees' some 4.1 million rural-urban migrants in Northeast Brazil in the 1960s and a further 4.6 million in the 1970s, even though he admits that many areas not affected by drought also lost population as a result of poverty; whilst for Ethiopia, Ramlogan simply repeats an observation originally cited by Jacobson (1988) that one million people 'were about to move because of famine conditions' - without actually saying whether they did (Ramlogan, 1996, 83).

Similar difficulties emerge for the effects of 'long-term environmental degradation', where Ramlogan curiously cites the 'Black triangle' of the Czech Republic, Poland and south-east Germany as a region of out-migration due to pollution (a judgement that might be questioned by German authorities who have spent the last few decades trying to deal with in-migration!). And on the aftermath of war, Ramlogan makes the extraordinary assertion that the failure of Afghan refugees to return to their country from Pakistan is due to poor land productivity and the number of land mines - when surely the continuing conflict in their country of origin, and the largely favourable economic conditions they have experienced in exile might be considered more (or as) relevant factors.

Such problems strike to the core of the literature on environmental refugees, and nowhere more so than in the generation of statistics on its prevalence. In turn, the generation of statistics is critically dependent on the definition of 'environmental refugees', a process which might well be seen as impossible given the multiple and overlapping causes of most migration streams. In so far as distinctions between causes can be drawn, the following sections consider three different types of 'environmental migration' and the evidence that has been put forward for the existence of these phenomena. It is evidence that is far from convincing.

A 'myth' extended: desertification-induced displacement?

Out of the range of environmental migration 'types' cited above, perhaps one of the most pervasive in terms of popular recognition at least is that of the poverty-stricken (and usually African) farmer who is finally forced to leave the land because of drought, progressive impoverishment of the soil, and ultimately famine. The phrase 'desertification', conjured up in the 1970s to evoke the relentless onward march of the desert, but with its origins in colonial concern about mismanagement of the environment (Swift, 1996), evokes too the flight of humans towards less hostile lands, or more likely to 'refugee' camps. Particularly in the Sahel, but also in other 'marginal' semi-arid areas across Central America, Asia and even southern Europe, desertification-induced migration epitomises the 'threat' posed to industrialised societies by an army of the poor and starving on the move. As Jacobson (1988, 6) put it:

Desertification ... has irreparably damaged millions of hectares of once productive land and made refugees out of millions of sub-Saharan African farmers. Migration is the signal that land degradation has reached its sorry end.

However, the evidence for 'desertification' causing migration in any straightforward way is somewhat limited. First, it is important to note that the concept of 'desertification' itself has come under fire in recent years, particularly as availability of satellite images of the region has improved. Thus work by Dregne and Tucker (1988) and Tucker *et al.* (1991) has shown a highly elastic response of vegetation cover to growing season rainfall, with the 'desert margin' in the Sahel fluctuating from year to year as a result.

Williams and Balling (1996, 50) question as 'equivocal' evidence that human activities have changed climatic patterns through influencing surface albedo, surface roughness, plant cover and soil moisture. Mortimore (1989) has noted that management practices that were thought to contribute to land degradation need to be placed in historical context. Overall, there is increasing talk of the 'myth' of desertification (Helldén, 1991; Thomas and Middleton 1994; Swift, 1996).

If one accepts the argument that desertification itself is largely a myth, then it is not, perhaps, too great a step to suggest that desertification-induced migration is a myth too. Nonetheless, even if there is no secular trend of declining vegetation cover and land productivity in the Sahel, and vegetation recovers as rainfall increases, it is possible that stress migration might result from a temporary decline in the productivity of agricultural and grazing land during drought periods. Yet, for such migrants to be termed 'environmental refugees', it seems reasonable that environmental decline should represent the main (if not the only) reason for their flight.

In practice, such evidence is hardly forthcoming. For example, in one review of desertification-induced migration world-wide, Schwartz and Notini (1995) cite examples from Mexico, Haiti, and the Sahel, as well as the cases of north-east Brazil, and north-west India discussed above. But each case is problematic. In the case of Mexico, after a review of general environmental problems in the country, Schwartz and Notini provide only a brief discussion of an attempt to statistically correlate areas

of emigration with areas of 'aridity'. They go on to admit that not all arid areas are 'degraded', that not all migration from these areas is necessarily the result of desertification. Their rather lame conclusion is that 'our discussion with experts, research, and analysis of the relevant statistics data *will likely confirm* that desertification is a factor contributing to migration from this region' (Schwartz and Notini, 1995, 82: my italics).

Elsewhere, and reliant on studies funded by the Universities Field Staff International and published by the National Heritage Institute, the evidence is little more convincing: for example, in Haiti, it is stated that deforestation and soil erosion are severe problems facing the country, but no clear link is demonstrated to migration. Indeed, for the case of emigration, it is stated that 'it is evident that most of Haiti's emigrants in recent years have been *political and economic refugees*' (ibid, p.88, my italics), influenced only 'to some extent' by environmental deterioration.

In other work too, the evidence that is presented for migration as a result of drought and desertification is generally only the existence of migration from regions that are prone to such processes. A causal link to drought is seldom established, whilst in some cases, not even the existence of 'excess' migration is demonstrated. Thus Jacobson (1988) cites a number of Sahelian states in which rural-urban or north-south migration occurred during the drought period of the mid-1980s, or in which significant populations became dependent on food aid, and all of this is taken as *prime facie* evidence that these groups have been forced from desert margins because of declining rainfall.

However, within the Sahel, and indeed in other semi-arid regions, there is a tradition of migration that extends back over decades, and often centuries, and which ranges from nomadic pastoralism to long-distance trade, as well as the permanent relocation of individuals and families. In turn, these migrations, though rooted certainly in the difficult environmental conditions of the region, and the need to diversify income-earning opportunities, are not necessarily related to a decline in those conditions (Cordell *et al.*, 1996; Rain, 1999). Indeed, there is now an increasing body of literature on migration, both internationally from, and locally within the Sahel region, which suggests that a simple link between poverty, environmental degradation and migration is hard to sustain.

In the Senegal River Valley, one of many source areas for migration to Côte d'Ivoire, Lericollais (1989) notes that migration has long reflected a household strategy to cope with environmental risks, which although severe, are not necessarily regarded as worsening. Studies have identified how migration plays a cultural role in the transition to manhood, as well as being economically linked to the generation of sufficient revenue to buy livestock (USAID, 1990; Velenchik, 1992).

Factors such as the decline of markets for traditional cash crops (which include gum arabic and cotton), the development of Senegal's groundnut basin, and subsequent mechanisation of agriculture in the delta provide additional and more recent motivations to move out of the middle and upper parts of the Senegal River Valley (see Adams, 1977). Moreover, such conclusions are not limited to the western Sahel, but can be extended across the continent. As David (1995, 18) notes from an empirical study based in Senegal, Mali, Burkina Faso and Sudan:

Migration does not necessarily signify a rejection of a rural livelihood. Rather, it demonstrates that the survival strategies of rural Sahelians are not only rooted in their immediate vicinity, but are also linked into economies in other rural and urban locations. It is precisely this inter-linkage which supports rural communities and helps them to survive in such climatically unstable environments.

The picture is one of migration as an essential part of the economic and social structure of the region, rather than a response to environmental decline - a picture reinforced by numerous other studies that have confirmed the critical role of migrant remittances in household and regional economies (Condé and Diagne, 1986; Horowitz *et al.*, 1990).

The situation appears similar in other semi-arid regions of the world allegedly prone to desertification and related migration. For example, Glazovsky and Shestakov (1994) argue that currently 40 per cent of the population of the former Soviet Union are living in areas characterised by 'acute ecological situations' that are adequately described as desertification. But they also admit that migration from such areas is not new, including as 'desertification-induced migration' such movements as the migration of Mongolian tribes northwards in the second century B.C. due to drought, or the removal of population from the Khoresm oasis in the first century A.D. after the invasion of nomadic tribes which destroyed irrigation systems.

This notion of 'environmental refugees' hardly tallies with arguments about recent destruction of the ecological balance by modern society; rather, migration is again perhaps better seen as a customary coping strategy. In this sense, movement of people is a response to spatio-temporal variations in climatic and other conditions, rather than a new phenomenon resulting from a physical limit having been reached.

For the 'environmental refugees' thesis to be plausible in the Sahel and other semi-arid regions, what is required is not simply evidence of migration from what have always been harsh, marginal environments; rather evidence is needed of an increase in migration at times, or in places, of more severe environmental degradation. Such a process is hinted at in discussions of 'stress migration' in the Sahel, one of five phases of response to famine identified by Cutler (1984), the others being sale of stock, wage labour, borrowing of cash or food, and the sale of valuables. Yet as Pottier (1993) observes, there are a number of analytical question marks both over developing typologies of responses to famine, and especially over assuming that these occur in a sequence, the last, and most severe of which is migration.

For Pottier, migration is not an 'end result' which can be labelled simply as a 'problem', but often forms part of the solution to famine for those concerned. In each case, the dynamic causes and consequences of migration need to be investigated, not assumed. Nor are migrants from drought necessarily 'refugees' even in the broad sense of the word. Indeed, Turton and Turton (1984, 179) reported how the Mursi of Ethiopia responded to the 1970s drought through a strategy of 'spontaneous resettlement' in which they systematically avoided distributed relief at institutional feeding points - which might 'have turned large numbers of Mursi into permanent refugees in their own country'.

Some of the evidence that does exist specifically on migration responses to environmental stress points at least in part in the opposite direction. Thus a study by Findley (1994) of emigration from the Senegal River Valley in Mali shows that during the drought of the mid-1980s, migration actually *declined* rather than increased. In turn, there was a clear reason for this, since to migrate requires an initial cash investment to pay for travel and associated expenses on arrival, and an economic downturn reduces the ability of families to make such an investment. However, there was an interesting nuance to this finding, in that whereas mainly male *migration* (defined as departure for a period of six or more months) declined, the process of *circulation* (defined as departure for less than six months, and involving many more women and children) did increase during the most severe period of the drought.

In a similar vein, Davies (1996) talks of the difference between ‘coping’ strategies (such as temporary circulation) and ‘adaptation’ to drought, the latter involving more permanent and irreversible changes in livelihood, and usually an increase in poverty and vulnerability. It is less than clear that migration represents a prominent form of ‘adaptation’ in the Sahel.

Refugees from rising seas?

Where there is perhaps some more justification of the notion of environmental migrants (if not ‘refugees’) is in the case of more dramatic and permanent changes to the environment associated with catastrophic events such as floods, volcanoes and earthquakes. Sometimes such natural events involve temporary displacement, as in the case of the Kobe earthquake of 1995, where, according to the Japan Times, an initial figure of displaced of over 300,000 fell to below 50,000 within three months of the tragedy. Similarly, the floods of March 2000 in central and southern Mozambique saw the forced displacement of up to a million people, but a few months on from this tragedy, most had been able to return to their homes.

More significant for discussion here, however, is the interaction of such ‘natural’ and irreversible events with processes of human-induced environmental degradation: in other words, examples where a failure to observe principles of good environmental management and sustainable development can be seen to have contributed to the environmental decline that is at the root of displacement. In this context, perhaps the most significant argument for ‘environmental refugees’ - and a main plank of the argument of writers such as Norman Myers - is the predicted effect of human-induced climate change, and the impact this may have on sea-level rise, and increased flooding of low-lying coastal areas.

A relatively simple assessment is needed to estimate the populations ‘at risk’, with Jacobson (1988) for example suggesting that a one metre rise in sea level could produce up to 50 million environmental refugees. Myers again quotes a higher figure, with a forecast of 150 million environmental refugees by 2050 (Myers, 1993d, 191), and it is this figure that is used by the Intergovernmental Panel on Climate Change (IPCC), the UN scientific body responsible for reviewing the causes and impacts of climate change, in its calculation the costs of not responding (Bruce *et al.*, 1996). Myers (1996) has subsequently put the potential number at 200 million environmental refugees from sea-level rise alone.

Nonetheless, the question of predicting how many people might be forced to leave their homes as a result of shoreline erosion, coastal flooding and agricultural disruption linked to climate change is far from being straightforward. In particular, although Myers identifies a number of parts of the world, including Bangladesh, Egypt, China, Vietnam, Thailand, Myanmar, Pakistan, Iraq, Mozambique, Nigeria, Gambia, Senegal, Columbia, Venezuela, British Guyana, Brazil and Argentina, as being threatened by 'even a moderate degree of sea-level rise' (Myers, 1993d, 194-95), and is able to point to figures for flood-related deaths in these regions, he does not identify any specific populations that have been forced to *relocate* from flood-prone areas in the recent past as a result of sea-level rises that have already occurred.

The point is that there are many potential responses to increased flooding, of which migration is only one. Some of the rural-urban migration that has occurred in areas prone to flooding has been to cities that are hardly better placed to withstand the effects of sea-level rise.

In general, calculating the population 'at risk' from sea level rise is a long way from predicting mass flight of a 'refugee' nature with its attendant need for international protection and assistance. For example, in a study of response to floods in Bangladesh, Haque and Zaman (1993) point out that there are a range of adaptive responses by local populations, which include forecasting, the use of warning systems, flood insurance, relief and rehabilitation efforts. Interestingly, they note that 'in contrast to the English meaning of "flood" as a destructive phenomenon, its usage in Bengali refers to it as both a positive and a negative resource' (Haque and Zaman, 1993, 102).

Earlier work by Zaman (1989, 197) stressed how in Bangladesh, 'whilst erosion removes land, new land appears elsewhere', which can be 'used immediately after it re-emerges'. As a consequence, although 61 per cent of his study population in the delta had been displaced, 90 per cent of these households had moved less than two miles from their original location.

Environmental conflict and refugee movements

In addition to the possibility of a direct link between deteriorating environmental circumstances or dwindling natural resources and induced migration, a further postulated cause of 'environmental refugees', and a link back to the literature on 'political refugees', is the notion that environmental degradation is increasingly at the root of conflicts that feed back into refugee movements. This has become a major theme of the literature on 'conflict studies' as East-West rivalry is no longer a convenient explanation of war, and other factors behind conflict and forced migration need to be found.

However, a review of major conflicts that have caused large-scale forced migration during the 1990s, for example, provides little evidence of the generation of environmental 'hotspots' that have developed into war. Thus of the eleven distinct conflicts identifiable as being behind 'recent' forced migrations (i.e. since 1990), some, far from reflecting disputes over declining natural resources, could be better

described as conflicts in which the protagonists are attempting to control already or potentially-rich natural resources.

The Gulf War of 1991 occurred as a result of one oil-rich nation seeking to control its oil-rich neighbour; the current war in Sudan is also at least partly about control of oilfields in the south and the building of a canal to open up the southern region (Collins, 1990), whilst Azerbaijan and Kazakhstan, currently undergoing oil-led booms, are hardly the poorest of the former Soviet republics. Both of these latter conflicts, and others, ranging from the former Yugoslavia and the Great Lakes to Bhutan and Burma, might be seen to have more to do with the rise of ethnic (and/or religious) nationalism than overtly environmental conflict.

Of course, in some cases, and particularly in the 'complex political emergencies' of the Great Lakes, Sierra Leone/Liberia, and Somalia, environmental issues can be seen to have some relevance in the development of hostilities, and a case can be made that environmental degradation forms an important root cause of the conflict. In Rwanda, an extreme position is put by Diessenbacher (1995, 58), who argues that overpopulation not only caused the genocide in Rwanda, but had 'an exponential effect on other influencing variables'.

Although his thesis does not rely on environmental degradation *per se*, but rather the failure of the productivity of the environment to keep up with population growth, a clear link with environmental degradation is identified. In general, the image portrayed of much writing on Rwanda since the genocide is of a poverty-stricken country in which the conflict was somehow linked to the inadequacy and deterioration of the resource base, such that the war was partly a struggle over scarce natural resources.

However, an alternative perspective quite reasonably locates the recent conflict in Rwanda in a political struggle for power, in which ethnicity and access to natural resources were both mobilised as issues by powerful élites (Lemarchand, 1994; Prunier, 1995; Reed, 1996). Equally, the history of the region, and especially the history of colonial policy of 'divide and rule' of populations that had previously lived together over centuries (albeit not always in perfect harmony) can also be seen as highly relevant to the genesis of the conflict (Davidson, 1994; Mamdani, 1996). Indeed, the conflict itself appears now to be taking on a regional character, not limited to the zone of high population density in the Great Lakes itself (Pottier, 1999).

Similarly, in the case of the war in Liberia and Sierra Leone, Richards (1996, 115) reviews the evidence for an environment-conflict link, but concludes that 'no direct connection between deforestation and the war is found'; in essence, although Liberia and Sierra Leone have environmental problems, they do not have environmental crises. Instead, Richards argues, the causes of the war need to be sought elsewhere. Regardless of the particular root of the war, an analysis such as that of Kaplan (1994, 46) which links together 'disease, overpopulation, unprovoked crime, scarcity of resources, refugee migrations, the increasing erosion of nation-states and international borders, and the empowerment of private armies, security firms, and international drug cartels', provides little causal explanation but much passion in an 'analysis' that is symptomatic of much of the field.

Elsewhere in the world, and in earlier conflicts, once again, the evidence for environmental pressure or degradation (or indeed population pressure itself) actually causing conflict and forced migration itself is limited. Diessenbacher (1995) suggests that of the 181 wars and civil wars worldwide since 1945, 170 have occurred in places suffering from population explosions. But such an association is not a substitute for causal analysis, and in detail, it is a thesis that all too often breaks down.

For example, Lazarus (1991) quotes a report by USAID on El Salvador, which argues that conflict between the government and rebels in the late 1980s has resulted in 'fundamental environmental as well as political problems', but this is hardly evidence that these problems fuelled a war so much rooted in the international politics of the Cold War. In Mozambique, which saw at least three million people displaced abroad and internally, conflict was again clearly rooted in the Cold War; here, it is interesting that overwhelming perception of Mozambican refugees on return after the conflict was that they were going back to a country with unlimited resources and few if any environmental problems (Black et al., 1998a).

However, it is also quite ironic (and telling) that in one of Africa's least populated countries, pressure of population on resources has probably occurred, stimulated not by high population densities *per se*, but by granting of land concessions to private companies (cf. McGregor, 1997). In Somalia, the history of western (and Soviet) intervention is so long that it is practically impossible to disentangle from the troubled history of this war-torn country (De Waal, 1997). The point is that in conflict, as much as in migration, it is difficult or impossible to isolate particular causes, outside the broader context within which these processes develop; indeed, conflict and migration themselves are part of a dialectical relationship with this broader 'context', such that a simple causal link from environmental degradation to conflict to migration is hardly likely to be found.

Environmental explanations of migration: whose agenda?

The examination of statistics on 'environmental refugees', and of the detailed case studies in which this category of forced migrant is supposed to be prominent, are not encouraging in terms of staking out a new area of academic study or public policy. Yet, the list of international organizations that have stressed concern about 'environmental refugees' remains impressive. Organizations from the International Organization for Migration (IOM) to the United Nations Environment Programme (UNEP), and the Intergovernmental Panel on Climate Change (IPCC) have shown an interest in the concept, sponsoring a wide range of reports and initiatives.

Meanwhile, amongst others, Norman Myers in particular has been prominent in popularising the term amongst dignitaries ranging from President Clinton to the then United Nations Secretary General, Boutros Boutros-Ghali (Kibreab, 1997). As Kibreab points out, 'prominent international personalities are irrelevant in determining the explanatory or predictive value of a term' (ibid, p. 21) - but they are important in allowing it to gain currency.

It is in this context that the final section of this paper turns to the question of why the term 'environmental refugee' has been so seductive. For Kibreab (1997, 21), the

answer lies in the agenda of policy-makers in the North, who wish to further restrict asylum laws and procedures: thus the term was 'invented at least in part to depoliticise the causes of displacement, so enabling states to derogate their obligation to provide asylum'.

Since current international law does not require states to provide asylum to those displaced by environmental degradation, argues Kibreab, the notion that many or even most migrants leaving Africa for Europe, or Central America for the US are forced to move by environmental factors allows governments to exclude a significant number from asylum. Academics have in turn been complicit in this process by endorsing the term. This is a plausible explanation, given some force by Westing's (1992, 205) observation that the ranks of both recognised and unrecognised refugees 'are being swelled by environmental refugees rather than by political or social refugees'.

However, the notion that 'environmental refugees' have been talked up by northern governments seeking to restrict asylum sits somewhat uneasily with the fact that much of the literature on 'environmental refugees' has in practice argued for an *extension* of asylum law and/or humanitarian assistance to cover those forcibly displaced by environmental degradation, rather than endorsing a differentiation between 'political' and 'environmental' causes as a matter of policy.

Thus a report by the World Foundation on Environment and Development and the Norwegian Refugee Council (an arm of the Norwegian government) argued for establishing a system of protection for environmental refugees (Trolldalen *et al.*, 1992, 23), whilst the International Organisation for Migration (IOM) and the US-based Refugee Policy Group (RPG) also concluded that new international instruments were needed to provide assistance and/or protection to a group currently ignored by international policy (IOM/RPG, 1992, 30). Even if the practical impact of literature on 'environmental refugees' has been to endorse northern states moves to restrict the definition of asylum still further, this does not appear to have been the conscious intention of many of those writing on the subject.

In fact, one of the ironies of writing on environmental refugees has been that whilst purporting to highlight a 'forgotten' category of forced migrant, which is ignored by international policy makers, this literature in practice serves only to differentiate a single cause of migration, which often forms part of a set of reasons why an individual or family may be forced to relocate. As McGregor (1993, 158) argues, '(t)he use of the term "environmental" can imply a false separation between overlapping and interrelated categories'. But this separation is frequently not made in practice by organisations such as UNHCR who already use their 'good offices' to provide assistance to a range of groups in 'refugee-like circumstances'.

In this sense, then, Kibreab is correct to state that to focus on 'environmental' causes could lead to the withdrawal of asylum from those who currently receive it - except that the focus here would be much more on large-scale forced migrations inside the developing world (where UNHCR, for example, has much more room to manoeuvre in influencing which populations should receive protection and assistance, and where states have not traditionally screened individual asylum applicants), rather than on asylum in the North, where rules are already very restrictive.

If academic and policy interest in the notion of environmental refugees is not overtly motivated by a desire to restrict asylum, the question remains as to why so much effort should have been spent in trying to separate environmental causes of migration from other political, economic or social causes, even to the point of trying to rewrite the definition of a refugee in international law. Arguably, the answer lies not in asylum literature or policy at all, but in environmentalist literature, as well as in the field of 'conflict studies'.

One of the major proponents of the notion of 'environmental refugees', Norman Myers, comes not from a background in migration or refugees or asylum, but from the science of ecology: in turn, the principle concern of his writing is not migration, but the imminent threat of environmental catastrophe surrounding climate change (Myers, 1993c, 1993d), deforestation, and desertification (Myers, 1993a). In an article for the magazine *'People and the Planet'*, he points out that he 'does *not* assert that the immigrant problem should be perceived as some sort of threat' (Myers, 1993b, 28).

Nonetheless, he goes on to suggest that 'without measures of exceptional scope and urgency, Europe may have to accommodate growing numbers of newcomers', and poses an ominous choice: 'either to be more expansive in our attitudes towards neighbouring countries that are also developing countries, or accept that Europe's living space will have to become more expansive to accommodate extra people'. In other words, to do something about the rising tide of environmental refugees also requires governments to do something about the causes of environmental degradation.

This in turn was a point that had not escaped the organisers of a 1994 UN symposium on 'Desertification and migration' at Almeria, in which sponsors of the Convention to Combat Desertification sought to generate northern (i.e. donor) interest by highlighting the threat of mass migration to northern countries if nothing were done. Thus the 'Almeria Declaration' produced by the symposium states:

The number of migrants in the world, already at very high levels, nonetheless continues to increase by about 3 million each year. Approximately half of these originate in Africa. These increases are largely of rural origin and related to land degradation. It is estimated that over 135 million people may be at risk of being displaced as a consequence of severe desertification. (INCCCD, 1994, 1).

The driving forces behind this declaration were the representatives of southern rather than northern governments; indeed the northern academics who attended were principally responsible for 'talking down' the figure of populations 'at risk of being displaced' from an initial one billion. It is also interesting to note Kibreab's observation that the term 'environmental refugee' originated with the United Nations Environment Programme - the first, and one of the few UN organisations not to be located in the North, and seen by many as being more firmly aligned to African rather than 'northern' interests within the UN.

Perhaps more important still in pushing the notion of 'environmental refugees' to centre stage have been writers in the field of conflict studies, as attention has shifted

away from super-power rivalry as the major cause of conflict and forced migration after the fall of the Berlin Wall and the end of the Cold War.

For example, reporting on a major project sponsored by the American Academy of Arts and Sciences and the Peace and Conflict Studies Program of the University of Toronto, Thomas Homer-Dixon (1994) presented three hypotheses on the relationship between environment and conflict: (a) that environmental scarcity leads to simple scarcity conflicts between states; (b) that environmental scarcity causes large population movement, which in turn causes group-identity conflict; and (c) that environmental scarcity causes economic deprivation and disrupts social institutions, leading to 'deprivation' conflicts. Although Homer-Dixon rejected the first hypothesis, the latter two were upheld, focusing for example on the Bangladesh and Northeast India (Assam) case, in which millions of environmentally-displaced people are said have contributed to communal conflict.

This theme was taken up by Suhrke (1993), who drew a distinction between 'environmental migrants', who respond to a combination of 'push-pull' factors - prominent amongst them environmental factors - and 'environmental refugees', suggesting that '(i)f it is to have a meaning at all, the concept of environmental refugee must refer to especially vulnerable people who are displaced due to extreme environmental degradation' (ibid, p. 9).

This distinction is seen in part as having a temporal aspect, as the slow build-up of environmental degradation is associated with 'environmental migration', to be followed by the reaching of a threshold point at which sudden, absolute and irreversible degradation induces a flow of refugees. However, such a distinction begs a number of questions, not least how a 'refugee' is defined; as McGregor (1993) notes, the legal definition of a refugee - and ultimately the one that guides government and international policy - centres not on the speed of the onset of migration, nor primarily on whether it is 'forced', but on the crossing of an international boundary and consequent need for protection that cannot be, or is not, provided by the country of origin. Thus in circumstances where an individual satisfies the criteria for being labelled a 'refugee', the term 'environmental' becomes redundant.

In turn, it is unclear that the complex set of factors that lead to 'environmental migration' as defined by Suhrke would suddenly evaporate or crystallise into a single 'environmental' cause at the time people become refugees. Although a distinction could be sustained at the level of proximate causes of flight, this is unhelpful from an academic point of view if it is accepted that the response to forced migration needs to be guided by underlying, rather than simply proximate causes.

Conclusion

Taken as a whole, the impression gained from this brief review of existing literature on 'environmental refugees' is one in which lists of factors have overcome theoretical rigour. There are abundant typologies of 'environmental refugees' and 'environmental migrants', but little agreement on, or understanding of what these categories might really mean. Practical concern with the plight of poor people leaving fragile environments has not translated into hard evidence of the extent or fundamental

causes of their problems. Moreover, there remains a danger that academic and policy writing on 'environmental refugees' has more to do with bureaucratic agendas of international organizations and academics than with any real theoretical or empirical insight.

This is not to say that environmental change – or indeed the existence of high risk environments with highly variable climatic or other conditions – are not factors behind large-scale (and sometimes involuntary) migration. People have historically left places with harsh or deteriorating conditions, whether this is in terms of poor rainfall, high unemployment, or political upheaval, or some combination of these or other adverse factors. Yet, without a firm definition of who is an 'environmental refugee', it is not easy to say that this category of people is increasing; whilst in a multi-dimensional world, in which people's decisions to migrate (or stay) are influenced by a huge range of factors, an adequate definition does not seem very likely.

If international protection and assistance were to be offered in the future, through the Geneva Convention or some other international instrument, to the supposedly growing ranks of 'environmental refugees', the basis for such intervention would need to be much clearer than it is at present. To what extent do those uprooted by environmental disaster, whether temporarily or permanently, have particular protection or assistance needs? Can it be said with any confidence that addressing the 'root causes' of their flight (as UNHCR has sought to do for political refugees) would be any more successful or relevant in reducing 'environmental' displacement? Finally, if protection and assistance were extended by the international refugee regime to 'environmental refugees', would this help or hinder the battle to focus the world's attention on pressing environmental problems?

REFERENCES

- Adams, Adrian (1977) *Le Long Voyage des Gens du Fleuve*. L'Harmattan, Paris
- Black, Richard. (1988). *Refugees, Environment and Development*. London, Longman Development Studies.
- Black, Richard, Harrison, Elizabeth and Watson, Elizabeth (1998a). "Natural Resource Management Institutions in Post-Conflict Countries: A Framework for Research", Marena Project Working Paper no. 1, Brighton: University of Sussex.
- Bruce, J.P., Lee, H. and Haites, E.F. (1996). *Climate Change 1995: Economic and Social Dimensions of Climate Change*. Contribution of Working Group III to the Second Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge: Cambridge University Press.
- Cernea, Michael, and McDowell, Christopher (2000). *Risks and Reconstruction: Experiences of Resettlers and Refugees*. Oxford: Berghahn Books.
- Collins, Robert. O. (1990). *The Waters of the Nile: Hydropolitics and the Jonglei Canal, 1900-1988*. Oxford: Clarendon.
- Condé, J. and Diagne, P. (1986). *South-North International Migrations: a Case Study. Malian, Mauritanian and Senegalese Migrants from the Senegal River Valley to France*. Development Centre Papers, Paris: Organisation for Economic Cooperation and Development.
- Cordell, Denis .D., Gregory, Joel .W. and Piché, Victor (1996). *Hoe and Wage: a Social History of a Circular Migration System in West Africa*. Boulder, Co: Westview.
- Cutler, Peter (1984). "Famine forecasting: prices and peasant behaviour in northern Ethiopia". *Disasters* 8: 48-56.
- David, Ros (1995). *Changing Places? Women, Resource Management and Migration in the Sahel. Case Studies from Senegal, Burkina Faso, Mali and Sudan*. London: SOS Sahel.
- Davidson, Basil (1994). "On Rwanda", *London Review of Books* 18 August.
- De Waal, Alex (1997). *Famine Crimes: Politics and the Disaster Relief Industry in Africa*. London: International African Institute and James Currey.
- Diessenbacher, H. (1995). "Explaining the genocide in Rwanda: how populatoin growth and a shortage of land helped to bring about the massacres and the civil war", *Law and State* 52: 58-88.
- Dregne, Harold E. and Tucker, C.J. (1988). "Desert encroachment", *Desertification Control Bulletin* 16: 16-19.

- El-Hinnawi, E. (1985). *Environmental Refugees*. Nairobi: United Nations Environment Programme.
- Findley, Sally E. (1994). "Does drought increase migration? A study of migration from rural Mali during the 1983-1985 drought", *International Migration Review* 28(3): 539-553.
- Glazovsky, N.F. and Shestakov, A.S. (1994). "Environmental Migrations caused by Desertification in Central Asia and Russia", Paper presented to Almeria Symposium on Migration and Desertification, United Nations Negotiating Committee for a Convention to Combat Desertification, February 1994, Almeria.
- Haque, C. Emhad and Zaman, M.Q. (1993). "Human response to riverine hazards in Bangladesh: a proposal for sustainable floodplain development", *World Development*, 21(1): 93-108.
- Hazarika, S. (1993). "Bangladesh and Assam: Land Pressures, Migration and Ethnic Conflict", *Occasional Paper of Project on Environmental Change and Acute Conflict*, Washington, DC: American Academy of Arts and Sciences.
- Helldén, Ulf (1991). "Desertification: time for an assessment?," *Ambio* 20(8): 372-83
- Holbrooke, Richard (2000). "A Borderline Difference: We Ignore Millions Who Are Refugees in Their Own Countries", *The Washington Post*, 8 May.
- Homer-Dixon, Thomas (1994). "Environmental scarcities and violent conflict: evidence from cases", *International Security* 19(1): 5-40
- Horowitz, Michael, Salem-Murdock, M., Grimm, C., Kane, O., Lericollais, A., Magistro, J., Niasse, M., Nuttall, C., Scudder, T. and Sella, M. (1990). Suivi des activités du bassin du fleuve Sénégal, phase 1, rapport définitif, Binghamton, NY: Institute for Development Anthropology.
- INCCCD (1994). *The Almeria Statement on Desertification and Migration, 11 February 1994*. Châtelaine, Switzerland: Intergovernmental Negotiating Committee for a Convention to Combat Desertification.
- IOM (1996). *Environmentally-Induced Population Displacements and Environmental Impacts Resulting from Mass Migration*. International Symposium, Geneva, 21-24 April 1996, International Organisation for Migration with United Nations High Commissioner for Refugees and Refugee Policy Group.
- IOM/RPG (1992). *Migration and the Environment*, Geneva and Washington, DC: International Organisation for Migration and Refugee Policy Group.
- Jacobson, Jodi (1988). *Environmental Refugees: a Yardstick of Habitability*. World Watch Paper, no. 86, Washington, DC: World Watch Institute.

- Kaplan, Robert D. (1994). "The coming anarchy", *The Atlantic Monthly* February 1994: 44-76.
- Kibreab, Gaim (1994). "Migration, environment and refugeehood". In: Zaba, B. and Clarke, J. (eds.) *Environment and Population Change*, Liège, Belgium: International Union for the Scientific Study of Population, Derouaux Ordina Editions, 115-29.
- Kibreab, Gaim (1997). "Environmental causes and impact of refugee movements: a critique of the current debate", *Disasters* 21(1): 20-38.
- Lazarus, D. (1991). "Climatic change creates environmental refugees", *IDOC International* 2/91: 1-2.
- Lemarchand, René (1994). "Managing transition: Rwanda, Burundi, and South Africa in comparative perspective", *Journal of Modern African Studies* 32(4): 581-604.
- Lericollais, A. (1989). "Risques anciens, risques nouveaux en agriculture paysanne dans la vallée du Sénégal". In Eldin, M. and Milleville, P. (eds.) *Le Risque en Agriculture*. Paris: Orstom.
- Mamdani, Mahmood (1996). "From conflict to consent as the basis of state formation: reflections on Rwanda", *New Left Review* 216: 3-36.
- Mattson, J.O. and Rapp, A. (1991). "The recent droughts in western Ethiopia and Sudan in a climatic context", *Ambio* 20: 172-5.
- McGregor, JoAnn (1993). "Refugees and the environment". In Black, R. and Robinson V. (eds.) *Geography and Refugees: Patterns and Processes of Change* London: Belhaven, 157-70.
- McGregor, JoAnn (1997). *Staking their Claims: Land Disputes in Southern Mozambique*. LTC Paper no. 158, Land Tenure Centre, Madison, WI: University of Wisconsin.
- Mortimore, Michael (1989). *Adapting to Drought: Farmers, Famines and Desertification in West Africa*. Cambridge: Cambridge University Press.
- Myers, Norman (1993a). "Tropical forests: the main deforestation fronts", *Environmental Conservation* 20(1): 9-16.
- Myers, Norman (1993b). "How many migrants for Europe?", *People and the Planet*, 2(3): 28.
- Myers, Norman (1993c). "Environmental refugees in a globally warmed world", *Bioscience*, 43: 752-61.
- Myers, Norman (1993d). *Ultimate Security: the Environmental Basis of Political Stability*. New York and London: W.V. Norton.

- Myers, Norman (1996). "Environmentally-induced displacements: the state of the art". In: *Environmentally-Induced Population Displacements and Environmental Impacts Resulting from Mass Migration*, International Symposium, 21-24 April 1996, Geneva: International Organisation for Migration with United Nations High Commissioner for Refugees and Refugee Policy Group, 72-73.
- Myers, Norman and Kent, J. (1995). *Environmental Exodus: an Emergent Crisis in the Global Arena*, Washington, DC: The Climate Institute.
- Pottier, Johann (1993). "Migration as a hunger-coping strategy: paying attention to gender and historical change". In Marcussen, H.S. (ed.) *Institutional Issues in Natural Resources Management*. International Development Studies Occasional Paper no.9, Denmark: Roskilde University, 201-33.
- _____ (1999). "The 'self' in self-repatriation: closing down Mugunga camp, Eastern Zaire". In Black, R. and Koser, K. (eds.) *The End of the Refugee Cycle: Refugee Repatriation and Reconstruction*. Oxford: Berghahn, 142-70.
- Prunier, Gerard (1995). *The Rwandan Crisis 1959-1994: the History of a Genocide*. London: Hurst & Co.
- Rain, David (1999). *Eaters of the Dry Season: Circular Labor Migration in the West African Sahel*, Boulder, CO: Westview.
- Ramlogan, Rajendra (1996). "Environmental refugees: an overview", *Environmental Conservation* 23(1): 81-88.
- Reed, W.C. (1996). "Exile, reform and the rise of the Rwandan Patriotic Front", *Journal of Modern African Studies* 34(3): 439-501.
- Richards, Paul (1996). *Fighting for the Rain Forest: War, Youth and Resources in Sierra Leone*. London: International African Institute and James Currey.
- Sanders, T.G. (1990-91). *Northeast Brazilian Environmental Refugees: Where They Go. Parts I and II*. Field Staff Report, no. 21, Washington DC: Universities Field Staff International.
- Schwartz, Michelle L. and Notini, J. (1995). "Preliminary report on desertification and migration: case studies and evaluation". In: Puigdefábrigas J, Mendizábal (eds.) *Desertification and Migrations*. Logroño, Spain: Geoforma Ediciones, 69-113.
- Suhrke, Astri (1993). *Pressure Points: Environmental Degradation, Migration and Conflict*. Occasional Paper of Project on Environmental Change and Acute Conflict, Washington, DC: American Academy of Arts and Sciences.

- Swift, Jeremy (1996). "Desertification: narratives, winners and losers". In Leach, M. and Mearns, R. (eds.), *The Lie of the Land: Challenging Received Wisdom on the African Environment*. London: International African Institute and James Currey, 73-90.
- Thomas, David S.G. and Middleton, Nick J. (1994). *Desertification: Exploding the Myth*. Chichester: Wiley.
- Trollalden, Jon Martin, Birkeland, Nina, Borgen, J. and Scott, P.T. (1992). *Environmental Refugees: a Discussion Paper*. Oslo: World Foundation for Environment and Development and Norwegian Refugee Council.
- Tucker, C.J., Dregne, H.E. and Newcomb, W.W. (1991). "Expansion and contraction of the Sahara desert from 1980 to 1990", *Science*, 253: 299-301 .
- Turton, David and Turton, P. (1984). "Spontaneous resettlement after drought: a Mursi case study", *Disasters*, 8(3): 178-89.
- USAID (1990). *Senegal Agricultural Sector Analysis*. Dakar: United States Agency for International Development.
- Velenchik, A.D. (1993). "Cash-seeking behaviour and migration: a place-to-place migration function for Côte d'Ivoire", *Journal of African Economies* 2(3): 329-47.
- Westing, Arthur (1992). "Environmental refugees: a growing category of displaced persons", *Environmental Conservation* 19(3): 201-7.
- Williams, M.A.J. and Balling Jr., R.C. (1996). *Interactions of Desertification and Climate*. London: Arnold.
- Zaman, M.Q. (1989). "The social and political context of adjacent to riverbank erosion hazard and population resettlement in Bangladesh", *Human Organisation*, 48(3): 196-205.