CANADA'S PERIODICAL ON REFUGEES

REFUGE

Vol. 16 • No. 3 August 1997

DEVELOPMENT-INDUCED DISPLACEMENT

Overview

Peter Penz

Refugee studies are concerned with the displacement of people from their homes and native lands. Due to legal conventions defining refugees and their rights, the focus has generally been on people fleeing persecution and violence and seeking asylum in other countries. But much displacement occurs within countries and for reasons other than a fear of deliberate state victimization or violent disorder. In fact, very extensive displacement occurs from apparent efforts to do good. Development is broadly interpreted to consist of bettering the lives of people by improving their economic conditions. Violence is generally considered to be at least *prima facie* evil; people forced from their homes by violence are therefore victims of evil or of conflict that has escaped the bounds of civilized relations. Displacement by development, on the other hand, is an evil resulting from intentional political choices and, more specifically, the (at least alleged) pursuit of good.

The purpose of this issue of *Refuge* is to present instances of displacement due to development. In particular, two sources of development-induced displacement are evidenced in more than one of the articles. One source is dams, the other the Green Revolution.

Dams are an important form of infrastructure for development, especially in the generation of power for industrial development and in the development of irrigation for agricultural development. In this issue, the displacement effects of dams, as well as related issues, are discussed with reference to the Péligre Dam in Haiti by Philip Howard, to the Sardar Sarovar project on the Narmada River in India by Laurie Uytterlinde Flood and to the Kafin Zaki dam in Nigeria by Kole Ahmed Shettima. It is not only the huge reservoirs inundating often fertile and well populated land that cause dislocation, but also the irrigation canals and sometimes the degra-

CONTENTS:

CANADA'S PERIODICAL ON REFUGEES
REFUGE

Centre for Refugee Studies
Suite 322, York Lanes
York University
4700 Keele Street, North York
Ontario, Canada M3J 1P3
Phone: (416) 736–5663
Fax: (416) 736–5837
Email: refuge@yorku.ca

Vol. 16 • No. 3
August 1997

Editor
MICHAEL LANPHIER
Guest Editor
PETER PENZ
Assistant Editors
LYDIA SAWICKI
MARK SWINDER

Refuge is dedicated to the encouragement of assistance to refugees by providing a forum for sharing information and opinion on Canadian and international issues pertaining to refugees. *Refuge* was founded in 1981.

It is published six times a year by the Centre for Refugee Studies, York University, Canada. *Refuge* is a non-profit, independent periodical supported by private donations and by subscriptions. It is a forum for discussion, and the views expressed do not necessarily reflect those of its funders or staff.

Current subscription rates for one year (six issues) are: Canada Cdn.$50; all other countries U.S. $60. (Cheques must be drawn on a Canadian or a U.S. bank.) Current volume single issues are available at $10 per copy.

Please enclose your purchase order or payment.

ISSN 0229-5113

dation of downstream fisheries. Moreover, customary land tenure is questioned as land titles are required for compensation (or, in the case of those threatened by eviction to make room for those being resettled, for the retention of land in the face of the pressure to find land to resettle legally recognized land-holders who are displaced).

The other theme is the Green Revolution. As mentioned, dams can increase agricultural production through irrigation. But agricultural development involves many other elements, including new seeds and the use of fertilizer and pesticides, i.e. those of the Green Revolution, as discussed in the article by Mia Biasucci on India and by Philip Howard about the highlands of southwest Haiti. The Green Revolution was supposed to be scale-neutral, i.e. be of equal benefit to small farmers as to big farmers. However, it turned out to benefit the better endowed farmers disproportionately and actually impoverished poor farmers, thus displacing many of them.

Displacement is caused by diverse development activities. Examples are the impact on forest-dwellers from reserving forests for industrial and commercial logging, from converting forests to agricultural uses and from introducing mining and the chemical pollution associated with it, the impact on fisherfolk and paddy farmers from coastal shrimp-farming, or the impact on shanty-town dwellers from urban redevelopment. Another one, discussed by Malcolm Rogge with reference to Amazonian Ecuador, is petroleum extraction. Since in this case indigenous people are involved, there are issues of land rights as well as the life-and-death matter of a lack of immunity to diseases carried by the incoming labour force. As happened historically in the "New World" as a whole, displacement can take the deadly form of depopulation.

Even efforts to contain the environmentally destructive effects of development can force people from their homes, if carried out in a ruthless or thoughtless manner. Peter Vandergeest brings out that nature protection has displaced forest-dwellers worldwide.

It should be noted that, although the focus of this issue has been on poorer countries, the processes referred to are not absent here in Canada. The James Bay hydro project in Quebec is an example of dams displacing indigenous people in Canada, and the economic pressure on family farms reflects in part the impact of technology and corporate organization on agriculture and those who make their living from it.

The cases and forms of development-induced displacement presented in this issue of *Refuge* suggest a classification. A basic distinction to be made is between direct and indirect displacement. Direct displacement takes the form of eviction or refers to the process of being forced out in a direct manner, such as by the inundation of a valley or by legal prohibitions that take away basic rights to livelihood, such as the right to collect forest products.

Indirect displacement occurs through more circuitous chains of development impacts. Thus the Green Revolution did not directly displace poor farmers, but made it difficult for many of them to earn their living. This happened when they could not afford the Green-Revolution technology, but experienced the price-reducing effect of greater agricultural output due to improved productivity on the part of those who did utilize Green-Revolution technology. This process often combines with political processes that give big farmers privileged access to agricultural infrastructure such as irrigation. The result is frequently that poor farmers have no reasonable alternative to selling their property and moving into shanty-towns on urban fringes. Indirect displacement can also occur as a result of environmental consequences, such as erosion resulting from destructive logging practices that lead to landslides and to river flooding or chemical pollution that kills fish and thus undermines the livelihood of fisher communities. Displacement directly induced by development alone

is globally massive; when we add indirect displacement the phenomenon is truly ubiquitous.

The distinction between direct and indirect displacement is too crude for some of the cases dealt with in this issue. Thus, Peter Vandergeest deals with displacement that is not due to development as conventionally conceived, but due to efforts to protect nature against the destructive effects of development. Such destruction constitutes the first-order effects; remedial policies then are second-order processes; to the extent that these uproot people, such displacement is a third-order effect and could be deemed to represent indirect displacement. However, it often takes the form of evictions, which constitute direct displacement. (The phenomenon is actually more complicated. To the extent that nature conservation is merely to earn income from tourism, it is more like conventional development after all, and evictions are first-order effects of tourism development.)

The complications that this analysis gives rise to is something that Mia Biasucci has tried to deal with by proposing two distinctions: one between direct and indirect displacement and the other between primary and secondary displacement effects. Direct displacement refers to evictions and the like and indirect displacement to migration forced through the deterioration of economic and environmental conditions. On the other hand, "primary" and "secondary" draw a distinction in terms of the proximity to development initiatives. Thus the first-order effects of the Green Revolution are primary and second- and third-order effects are secondary. This double distinction leads her to focus on "indirect primary displacement" in the form of the livelihood impacts of the Green Revolution on farmers and on "direct secondary displacement," which are lower-order effects outside the agricultural sector but involve eviction-type displacement. It is thus useful to separate the directness of the displacement process from its proximity to development initiatives.

All of the articles involve normative critiques of displacement. They constitute at least negative prescriptions, i.e. not to engage in the kind of development policies that displace people. The third- and second-last articles, furthermore, also involve positive prescriptions to avoid displacement. Peter Vandergeest advocates the integration of established livelihoods with conservation and ultimately the replacement of destructive development constrained by highly selective conservation with a broader environmentally protective approach. Malcolm Rogge outlines an approach to the empowerment of those threatened by dislocation. Instead of state policy reform, this prescription is to reduce the inequalities of power in the conflicts and struggles that displacement involves and is addressed more to non-governmental organizations.

By involving critique and prescription with respect to development and displacement, these articles enter the terrain of development ethics. It is the purpose of my concluding article to probe into this terrain in a more explicit fashion by addressing some ethical questions concerning development-induced displacement. The concern there will be with possible justifications of development policies and projects that uproot people. More generally, it will, in the briefest of terms, provide pointers for moral evaluations of development policies with reference to the issue of displacement.

Are there alternatives? Two positive prescriptions offered in the following articles have already been referred to (widening environmental protection and empowering those vulnerable to displacement). More generally, an approach to development that prioritizes basic needs, the aims of local communities, and the environmental sustainability of economic activities, rather than big business, heavy industry and export production, can be expected to result in much less dislocation. In fact, it can be expected to contribute to the opposite of vulnerability to displacement, namely locational security. It is, however, unlikely that even a bottom-up approach to development will completely prevent dislocation. Compensation and environmentally and culturally sensitive rehabilitation for direct displacement, therefore, remain central issues as does assistance to those threatened or actually impacted by indirect displacement. Moreover, the problem of international debt and the entanglement in economic globalization may mean that the prevention of displacement is less feasible now than it was when development was still predominantly a national project (and states were much more in a position to choose not to pursue development policies that massively uproot people). This, too, means that alleviating the harm of development-induced displacement is as important as trying to avoid it in the first place. ■

Peter Penz is Associate Professor, Faculty of Environmental Studies, York University, Toronto.

Development-induced Displacement in Haiti

Philip Howard

Abstract

In recent decades the people of Haiti have faced ecological disaster, political upheaval, and persistent economic hardship. These afflictions have motivated hundreds of thousands of Haitians to migrate to other Caribbean countries, the United States and Canada. While many observers know that mass migration was the result of Haiti's problems, it was the mass migration from rural highlands to urban slums that created the important preconditions for the violent expression of collective grievances. Since the 1950s, certain development projects in the highlands have displaced large numbers of Haitians by causing or exacerbating the severe environmental degradation that destroyed their land, water and fuelwood resources. Specifically discussed are the Péligre Dam and the use of Green-Revolution technology. The result was that squatter settlements at the edge of Port-au-Prince and the district capitals grew crowded, volatile and violent.

Précis

Dans les dernières décennies la population d'Haïti a été confrontée à des désastres écologiques, des bouleversements politiques et un marasme économique persistant. Ces avatars ont amené des centaines de milliers d'haïtiens à émigrer vers d'autres pays des Caraïbes, vers le Canada ou vers les États-Unis. Si de nombreux observateurs sont bien conscients que cette émigration massive a été le principal résultat des problèmes d'Haïti, il y a aussi lieu de s'aviser du fait que c'est la massive migration interne depuis les régions montagneuses des campagnes vers les bidonvilles urbains qui est à l'origine des importantes conditions d'engendrement de l'expression de la colère collective. Depuis les années 1950, un certain nombre de projets de développement dans la zone montagneuse ont entraîné le déplacement d'un grand nombre d'haïtiens, en engendrant ou amplifiant la sévère dégradation environnementale menant à la destruction des terres, des points d'eau et des ressources en bois combustible. On discute ici spécifiquement le cas du barrage Péligre impliquant notamment l'utilisation de technologies relevant de la "Révolution Verte". Le résultat patent en a été que les communautés d'occupants illégaux de la périphérie de Port-au-Prince et des capitales de districts ont vu nettement augmenter leur nombre, leur instabilité et leur niveau de violence.

Introduction

Haiti is the most impoverished and environmentally degraded country in the western hemisphere. Although most developing countries experience rapid urbanization in some form, district capitals in Haiti have grown at unusually rapid rates in the past few decades. The capital of Haiti, Port-au-Prince, has grown at a faster rate than most of the world's larger megacities, straining local infrastructure and forming the political cauldron from which civil strife has boiled up. Civil strife and economic malaise in Haiti have often resulted in the migration of large numbers to the shores of Florida and the cane fields of the Dominican Republic and other Caribbean countries. However, mass migration from rural to urban areas over several decades created the initial conditions for civil strife: densely populated slums where solidarity between people with common health, economic and political grievances could build.

Haiti's tumultuous history is the background for its current predicament, because at no time since the revolution of 1804 have elites provided education or new sources of income to the large majority of Haitians from whom wealth was extracted (Mintz 1995). This context of endemic poverty is important for understanding recent turmoil, and observers are correct to look into class, corruption, and *vodoun* culture that are the most apparent facets of Haiti's political culture. However, mob violence in the streets of Port-au-Prince and other major urban centres has disrupted national politics more than protest in rural communities, and it is important to understand how and why these urban slums formed. Even though some analysts have also sought to associate rapid population growth and urban poverty with civil strife in Haiti, they often stop short of tracing popular grievances back to an important source—migration induced by the environmental consequences of development projects.

The urban population of Haiti has grown phenomenally in the last few decades. Natural growth rates in cities are often lower than in rural areas, and the population boom of cities like Port-au-Prince, Cap Haitian and Jacmel is largely the result of heavy migration from farming communities in the highlands. Some of this migration is due to general economic malaise and political strife that has long afflicted many highland communities. However, both large industrial development projects and smaller Green Revolution development projects induced a significant portion of the migration into Haiti's urban centres. The economic opportunities created by these projects were temporary, and they were created at the expense of the ecological resources used by the vast majority of the population in subsistence and small-scale agriculture.

Philip Howard is Doctoral Candidate, Department of Sociology, Northwestern University, Chicago.

This research was made possible by a grant from the Americas Branch of the Canadian International Development Agency (CIDA). For more information and copies of the final policy paper contact Philip Howard, Department of Sociology, Northwestern University, Chicago.

There is no nationwide empirical evidence with which to compare migration numbers from communities targeted for development with migration numbers from communities left to their own devices. However, the anecdotal and empirical evidence from specific development projects in Haiti is strong. Development-induced migration occurred at different rates in Haiti: projects that radically disrupted local ecology sent people to the cities or neighbouring regions at a rapid pace; projects that gradually degraded local ecology induced a slower pace of migration. This paper will review examples of each kind of development-induced migration. First, the social and ecological impact of the large Péligre hydroelectric and irrigation system in the Artibonite District will be explored. Second, a series of smaller highland development projects will be studied with the aim of identifying the inappropriate assumptions common to many such projects.

Development in Haiti

Economic and Political Context of Development in Haiti

Jean-Claude "Baby Doc" Duvalier inherited his father's title of "President For Life" in 1971 and led the country through several years of economic prosperity. However, the economic growth was unsustainable largely because of the new President's corrupt and lacklustre leadership. His regime violently suppressed political opposition, but after 15 years of economic and social stagnation protests and riots rocked the country's capital, Port-au-Prince. On February 7, 1986, Jean-Claude Duvalier fled Haiti for France (Abbott 1988).

In the following decade civil disorder constantly erupted on the political landscape of the country, and Haiti undertook a perilous path to democracy. Protests throughout the country frequently expressed dissatisfaction with government leadership, but violence in the capital's slums has been the most pernicious threat to state security. Although these slums remain an important part of Aristide's power base, they remain impoverished, overcrowded, and volatile communities.

Development projects are designed to foster development, but they can have unintended effects on rural communities and ecosystems. Land in Haiti has been stressed by overproduction and erosion in the past, but several development projects in rural Haiti have significantly degraded large parts of the countryside, displacing many families.

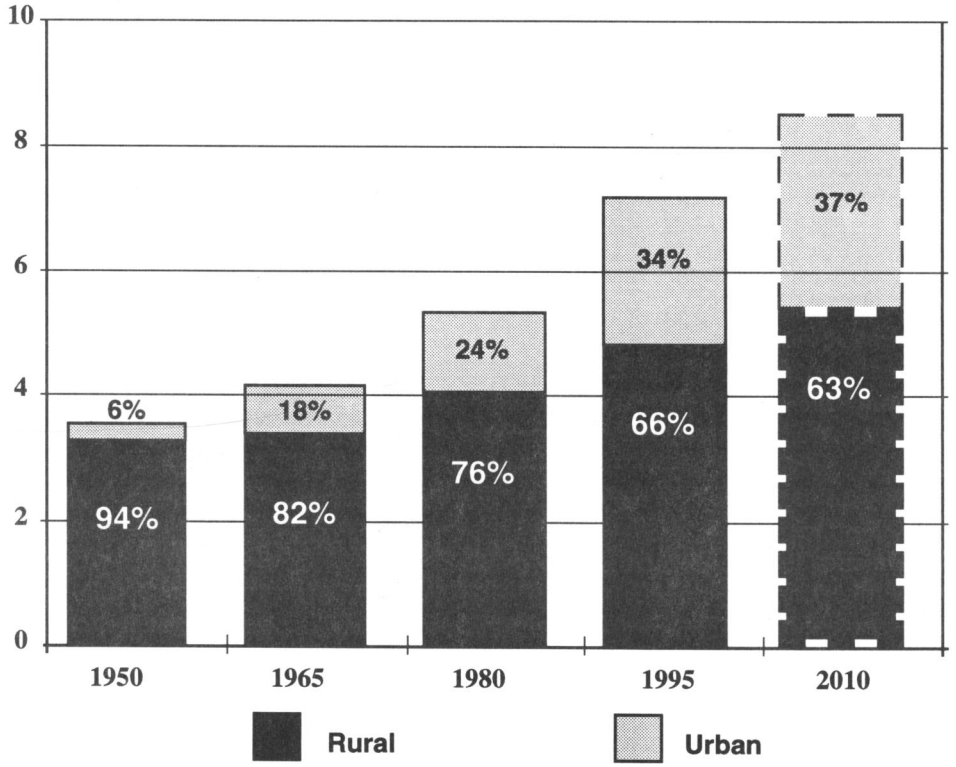
The Haitian state has long been run by a small number of powerful families, and this "educated urban and largely mulatto elite used the state to enrich itself by any means possible. Its members paid little or no taxes or customs duties, or even their utility bills" (Maingot 1995, 60). One observer called Jean-Claude Duvalier's regime a "keptocratic state" that sought to nationalize the economy so that corruption in the private sector could interact symbiotically with corruption in the public sector (Maingot 1995, 61). Since large sums were skimmed off public works projects many were ill-fated from the beginning, and few of the revenues generated from import duties have ever been put to rural development.

Most development projects sponsored by foreign agencies, by contrast, remained under close scrutiny by the donor community and were a relatively minor source of revenue for local elites. Still, projects had to work around the local elites that manipulate policies, programs and property rights in their favour. Rural populations in Haiti are managed by the administrative *chefs de section*, large land owners, and people who organize local exports, the *spekulate*.

Population Growth and Urbanization

Between 1965 and 1995 the total population of Haiti grew from 4.2 million to 7.2 million despite extremely high

Figure 1: Population Growth and Urbanization in Haiti, 1950–2010 (millions of people)



Sources: World Resources Institute, *World Resources 1994–95* (Oxford: Oxford University Press, 1994), 286; World Bank, *Social and Economic Indicators 'Stars' Data Set.*

rates of infant mortality and extremely low life expectancy. In contrast to the annual growth rate of 1.8 percent for the total population, the urban population grew by about 3.6 percent each year, and today one third of the population lives in burgeoning urban centres. Figure 1 details both rapid growth in the number of people living in Haiti and rapid growth in the proportion of Haitians living in urban areas. The state capital of Port-au-Prince has grown more than tenfold since 1950, and is now home to at least 2 million people.[1]

Even though the rate of growth in urban populations is high, about two thirds of the total population still live in rural areas. Some experts estimate that it takes one hectare of good land to feed two people for a year. Overall, rapid population growth in Haiti has resulted in the highest population density in the Americas—2.5 people per hectare. However, the quality of the land in many places deteriorated over this period.

Whereas environmental degradation induced people to leave rural areas, the hope of economic prosperity enticed people to come to the cities. In the mid-1970s almost half the urban population had access to piped drinking waters while only 3 percent the rural population had the same privileges. Even after the economic embargo, industry in Port-au-Prince employed less than 6 percent of the population yet accounted for 15 percent of the nation's GDP and garnered most of the state's meagre public expenditure (Bryan 1995, 68).

A Sensitive Ecology

Haiti is a mountainous Caribbean country of less than 2.8 million hectares. Almost two-thirds of the countryside has a slope of more than 20 percent, and two-fifths of the land is above 400 meters in elevation, making the soil particularly susceptible to erosion by torrential storms that pummel the land from June to October. Experts estimate that only one-third of the land is actually cultivable by conventional standards, though over one-half of the land is now put to some form of agricultural production (White and Jickling 1995, 8). Although the country is semiarid and protected against moist trade winds by the Dominican Republic, its soils are like those of other tropical islands—fertile but thin. Rapid deforestation and intense farming in several regions exposed the soil to the energy of wind and rain, which over a few decades carried away the livelihood of many rural families.

The Artibonite District and The Péligre Dam

Between the two coastal towns of Gonaives and Saint-Marc is a large plain of rich, fertile soil called the Artibonite District. A system of rivers flow from Lake Péligre in the central highlands of Haiti, nurturing the soils of one of Haiti's most agriculturally productive areas. Several decades ago the Artibonite District also developed the country's most complex irrigation system, a project that temporarily enhanced local agricultural production and eventually displaced large numbers of people.

While the construction of a hydroelectric and irrigation facility increased the production of some crops in the valleys downstream, the valleys upstream were heavily logged and subsequently eroded. Declining agricultural production upstream forced many people to migrate to the lowlands or urban centres. Since competition for land grew fierce in the Artibonite, an increasing number of families either moved into urban slums or chose to resolve disputes with machine guns purchased from the army.

Until 1949 the Artibonite was farmed by small producers and the land was of little agricultural value. That year, however, the government began to plan for a new hydroelectric and irrigation facility, about 100 kilometers upland from the mouth of the Artibonite River. With a US$40 million loan from the American government, the Artibonite Valley Development Organization (AVDO) planned a hydroelectric facility to provide power for Port-au-Prince to the southeast and irrigate the Artibonite valley to the northeast. Social elites were the first to hear of the project, and they began to buy up tracts of land for about one US dollar per hectare. Knowing that new areas of land were going to become productive, wealthy elites arranged for property rights to lands that were either unclaimed or occupied by peasants without clear titles.

The government organized a land registry program two years after making the decision to develop the Artibonite Valley. Using aerial photography engineers determined that 32,000 hectares of 45,000 hectares would benefit from the project, and that the average farm size was around 1.2 hectares. However, the average farm size was probably much lower—little over 1 hectare per farm. Moreover, the land survey did not track the number of people living off each parcel of land. In Haiti land property is traditionally divided in equal portions between heirs, and by underestimating the population density planners could not anticipate the demand for irrigation.[2]

Under the direction of the AVDO the Dam was completed and Lake Péligre created in 1956. Wherever irrigation facilities expanded in the next few decades, absentee landowners managed much of the agriculture on the newly productive land through rent and repression.

By 1963 much of the loan to the AVDO had been spent and the land registration left incomplete. Moreover, the United States suspended all economic and military assistance to Haiti because of the corruption and repressive regime of "Papa Doc" Duvalier. The rapid modernization of agriculture in the valley had significantly increased the area of rice cultivation and the volume of rice produced without creating the indigenous skills to maintain the irrigation system. Lacking the support of fertilizers and attention of engineers, the infrastructure deteriorated, accelerating the salinization of the soils. The AVDO reopened in 1971, but it was not until five years later that

a loan from the InterAmerican Development Bank allowed the irrigation system to be rehabilitated.

Haiti's production of rice increased significantly after the construction of the Péligre Dam, largely because of the expanding irrigation of the Artibonite District. By the late 1970s the Artibonite Valley region produced 80 percent of Haiti's rice across 32,000 hectares, and had 2 large state mills and over 200 smaller mills to collect and clean domestic, American and Taiwanese varieties of rice.

At the time, the government estimated that 20 percent of the land was worked by renters, 20 percent was worked by sharecroppers, and 60 percent of the land was worked by owner/occupants (Perez and Bona 1983, 9–10). However, these figures belie the complex reciprocal relationships that develop between neighbours in Haitian farming communities. Most families own some small plots and alternatively hired labour or served as labour when necessary. Because a minority of landlords owned larger plots of better quality, small producers increasingly hired themselves out to supplement the income from their less productive land. The scarcity of land resources in rural communities rose rapidly: at the outset of the decade 70 percent of the farmers had plots of less than 1.3 hectares; by the end of the decade 85 percent of the farmers had plots of less than 1.3 hectares (Durand 1983, 19).

The land registration process in the Artibonite did not begin again until 1978, fifteen years after it had stalled. Complete reports started coming back in 1981, revealing astounding population growth since the early surveys. Laborers had been brought in by absentee landlords, families from neighbouring regions migrated in search of new opportunities, and high fertility rates in many communities resulted in the constant subdivision of small plots between heirs. One study of 16 communities in 1951 found that property sizes ranged between 0.65 and 1.27 hectares, with the average plot measuring about 0.96 hectares. Thirty years later, property sizes in the same communities ranged between 0.22 and 0.56 hectares, with the average plot measuring only 0.45 hectares (Zamor 1983, 30–31).

One significant reason for the rising number of people in the valleys below the Péligre Dam was the utter decimation of agriculture in the central plateau above the dam. The most serious consequence of the Péligre was the logging that followed. Tropical forests in the highlands of Haiti had been inaccessible to logging interests until a network of good roads were built to service the dam. Consequently, the river basins above the dam were rapidly deforested, degrading the rivers and watersheds, and exposing a significant amount of topsoil to erosion. In turn, most of the eroded soil quickly collected at the bottom of the Péligre reservoir.

The dam had a formidable impact on land use patterns in the Artibonite. Table 1 reveals a radical change in land use along the Samana and Thomondes Rivers that feed into the Péligre reservoir. Both are representative of the effects of the Péligre development on upstream rivers. While the reservoir flooded three thousand hectares of land along the shore of the Artibonite, local farmers also cleared land to feed growing communities in the plateau.

Given that the population density of the entire region was estimated at one person per hectare in 1956, about 34,300 people were living in these two basins at the time. Assuming that the birth rate in these two basins was similar to that of other rural areas, the population of these two basins would have been between 42,700 and 49,500 in 1978. Using the conservative measure of the region's population, the changing resource base for communities in the Samana and Thomondes basins can be estimated.

Forests supply fuel, food and building supplies, and in 1956 there were roughly five people for every hectare of forest in the region. Twenty years later there were *fifteen* people living off every hectare of forest in the region. The addition of more land for agricultural production was offset by the rising number of people and severe erosion. On average there were 3.8 people living off each cultivated hectare in 1956, yet twenty years later there were 4.5 people living off each cultivated hectare. Restricted water flow also created a health hazard for

Table 1: Land Use and Resource Scarcity above the Péligre Dam, 1956 and 1978

Land Use	Samana Sub-Basin (hectares)		Thomondes Sub-Basin (hectares)		Regional Average (% of total)		Population per Resource Base (population/ hectare of resource)	
	1956	1978	1956	1978	1956	1978	1956	1978
Forest Woodland	4,030	700	3,200	2,140	21	8	4.7	15.0
Agriculture	2,570	3,600	6,400	5,730	26	27	3.8	4.5
Area Denuded, Eroded or Rocky	5,200	7,500	12,900	14,630	53	65	1.8	1.9
Total	**11,800**		**22,500**		**100**		**1.0**	**1.2**

Sources: M. Frenette et al., "Cas Historique de Sedimentation du Barrage Péligre, Haiti," *Canadian Journal of Civil Engineering*, Vol. 9 (1982): 210; World Resources Institute, *World Resources 1994–95* (Oxford: Oxford University Press, 1994), 286; World Bank, *Social and Economic Indicators 'Stars' Dataset.*

communities by turning the water brackish.

Acute shortages of land, fuelwood and fresh water resources began to displace people from the region above the dam in the late 1970s. Some moved to Port-au-Prince and other urban centres in search of work; some moved downstream in search of work or land to rent; others moved across the border into the Dominican Republic either permanently or in search of seasonal labour (Orenstein 1995). The decade of the 1970s saw a significant change in land distribution in the valley below, due in part to the influx of migrants.

Although the state expanded irrigation facilities in the Artibonite and made the region the leading producer of rice, a majority of properties downstream were suffering from chronic drainage and salinity problems by the mid-1980s. Agriculture was still more productive in the valley than in many places upland, and a large number of displaced people came in search of work or small plots of land to buy, rent or occupy. When possible, the AVDO subsidized fertilizers and repairs to the irrigation system, but dwindling state resources in the late eighties made comprehensive agricultural development difficult.

The Péligre Dam has become a textbook example of the importance of environmental impact assessments to sensible development planning. Original designs for the dam were informed by sedimentation studies done in 1925, and project engineers estimated that the dam would have an effective life of 180 years at a sedimentation rate of 3.45x106 m^3 each year. However, after 23 years the average silting was three times of the design estimates—9.60x106 m^3 each year had collected in the reservoir behind the dam. Deforestation and rapid population growth had radically altered the vegetative cover of many slopes, and the erosion altered water courses, expanded river banks, and resulted in gullying, mud slides and increased flocculation in the reservoirs (Frenette 1982). This rapid sedimentation interferes with the flow of water, reduces the holding capacity of the reservoir, and effects the efficiency of the dam.

Today siltation in the reservoir has reduced the holding capacity of the Péligre Dam by about 50 percent, and without dredging, repairs and erosion abatement strategies the full life of the dam will be reduced from the original estimate of 180 years to a mere 80 years. In other words, the dam may be completely silted up in 40 years.

Since the construction of the Péligre hydroelectric and irrigation system, the percentage of Haitians living in urban centres has grown more than fivefold, from 6 percent to 33 percent of the total population. This change was partly the result of development-induced migration from the Artibonite District. The Péligre Dam increased the productivity and value of downstream land in the years following its construction. Anticipating the rise in value, Haitian elites snapped up many properties and leased them back to the many local farmers desperate to feed growing families. As communities below the dam grew, heirs were forced to split diminishing land resources, and the appearance of displaced people from the highlands placed a greater burden on local fuel, land and freshwater resources. This pressure induced another wave of migration, mostly into the squatter settlements at the edge of Port-au-Prince.

The government of Haiti now identifies the Artibonite District as the area most urgently in need of land reform. The Artibonite has the largest number of properties held by absentee landlords in the country, and since land productivity is diminishing, the competition for good land between migrants, renters and small-holders has grown violent. Other highland areas did not see as much investment in agricultural development as the Artibonite, but still contributed large numbers of people to the growing coastal cities.

Agricultural Development Projects in the Highlands

Three key assumptions structured many of the agricultural development projects sponsored by foreign agencies, and these three assumptions were in part responsible for their long-term failure to generate sustainable agriculture. First, the superiority of Green-Revolution expertise and technology over that of indigenous farmers was assumed. Second, many planners assumed that Haitian farmers were highly independent producers who combated poverty by making only short-term investments in their land. Third, many planners worked around political territories rather than local ecology. Thus, foreign aid to agriculture often meant offering income-related incentives to specific individuals, regardless of their location in the watershed, to try techniques that would not be sustained once the funding stopped.

The Green Revolution and Incentives

Over two centuries ago Haitian peasants fought and won a revolution for independence from France and freedom from slavery. Over the past half century Haitian peasants lost the fight for a Green Revolution that was to bring them economic prosperity and feed their growing numbers.

The Haitian government tried to develop the country's industry at the expense of its agriculture even though the vast majority of the population were subsistence farmers in rural highlands. Small producers were heavily taxed though the state offered little agricultural or social assistance. Although significant financial support and technical expertise from the developed world came to Haiti over the half century, the Green Revolution was largely unsuccessful. Many large agricultural development projects did not consider the fragility of highland ecology, lowering the overall productivity of farms and driving people off the land.

To encourage the Green Revolution, agencies offered subsidies and credits on the condition that farmers adopt the recommendations of experts on high-yield plant species, special tools and land-use techniques. This meant that

outside experts could effectively dictate the terms of agricultural production for large areas, and even if the expert knowledge contradicted indigenous knowledge about local ecosystems, the farmers had an incentive to participate. In many cases the most labour-intensive techniques involved the construction of dams and bracing walls, and once the payment of wages and food stopped many of these structures fell into disrepair.

By the early 1980s new assumptions about peasant participation had to be worked into rural development projects. The new approaches recognized that farmer remuneration was not necessary for technique adoption and sometimes even acted against technique maintenance and diffusion; there existed a number of low-input, indigenous, anti-erosion techniques and agroforestry practices that could be improved; and peasants had a natural incentive to conserve soil in order to increase agricultural production (White and Runge 1994, 2).

However, "development" was still an exercise of formalizing and commodifying reciprocal arrangements between farmers. A recent watershed management project in southwest Haiti, discussed below, did not take advantage of the informal labour-reciprocity traditions of many rural Haitian farmers, and effectively strengthened the power of local elites and political bosses—the *chefs de section*.

Haitian Peasants as "Free Riders"

One of the crucial mistakes of many agricultural development strategies has been the assumption that Haitian peasants were "free riders" who chose to abuse common property, benefit from collective action without participating, and invest only for short-term gain. In the early 1960s the human capital of rural Haiti was studied by two major lending organizations: the OAS concluded that "no farmers' organization in the ordinary sense exists in Haiti" and the USAID concluded that the Haitian peasant was, "except under extreme duress, incapable of group action to defend his interests" (OAS 1963; Schaedel 1962, iii). A recent empirical study of collective action on watershed management exposed this myth (White and Runge 1994). Haitian communities do have strong traditions of cooperation, but old traditions of labour reciprocity were quickly eroded by development projects that demanded decisions from individual male heads of households and imposed more formal economic practices over informal traditions.

For example, White and Runge studied the cooperative habits of landholders within a watershed near Maïssade, in the central highlands of Haiti. Conventional wisdom predicted that collective management of the watershed (1) would be of less interest to upstream farmers than downstream farmers; (2) would be of less interest to farmers who rented their land than those who owned their land; and (3) that a farmers' contribution to the effort would only be in proportion to the expected benefits.

However, the study found that there was no difference in the labour contributed by those who benefited and those who did not, and that insecure land tenure did not affect a farmer's decision to cooperate. A farmer's decision to participate in the watershed management strategy was shaped by the individual's previous participation in small purchasing cooperatives (often called *gwoupman*), their understanding of the general benefits of soil conservation, and their experience with small dam construction on their property. White and Runge (1994, 29) conclude that free riding in the watershed management institutions studied was not a dominant strategy, discrediting the assumption made by many policy interventions in Haiti of strong individualism among rural peasants. Even though individualism among rural farmers was not strong to begin with, by offering cash incentives to those who broke from traditional institutions, agencies actually created competitive individualism in many communities.

Ecology and Territoriality

Projects such as the Péligre Dam were designed to serve populations within distinct political and administrative boundaries, with little or no recognition of more natural ecological units over which such boundaries had been imposed. For example, different communities in the same watershed were affected by development in any one community if the shared watercourse was manipulated. Project Save the Land chose to work in a series of communities stretching along coastal roads that crossed eight watersheds. In the end the US$15 million project had a negative impact on the people it was meant to serve because it destroyed local institutions and left the population ill-equipped to deal with worsening environmental degradation. People are still leaving the hillsides for Port-au-Prince and the southern coastal cities of Les Cayes and Jacmel.

In 1985 the USAID began to fund a project called Save the Land through several small non-governmental organizations (NGOs) with experience in Haiti. Its goals were to increase local income and reduce environmental degradation, and these goals would be accomplished by encouraging the production of high value crops, reforestation, and soil conservation strategies (Jaffe, forthcoming). Local storage facilities would be improved, livestock health would be monitored, and farmers would be taught how to better market their products. The project included approximately 60,000 families across 80,000 hectares in eight watersheds that flow down the southern exposure of the Massif de la Hotte mountain chain in the southwest arm of Haiti.

Most of the families live in settlements along the coastal road, though the average density of the region was around 5.7 inhabitants for each hectare of arable land. Each farmer cultivated about 1.5 hectares over several different plots of land, some of which was rented. Land resources were unequally distributed among the popula-

tion, with 10 percent of the population controlling 42 percent of the land.

According to project designers, many farmers had contradictory arrangements with other farmers, simultaneously renting out land to neighbours, renting land from neighbours, contracting labour to neighbours, and contracting labour from neighbours. The project sought to untangle these reciprocal arrangements and replace them with formal markets that could rationally mediate relationships with currency.

Within the region, NGOs targeted only landowners, preferring to work on large properties where they could have a large impact. The local economy was rearranged for the temporary project as local staff demanded larger salaries, nonexistent workers applied for pay, export crops were encouraged over improved subsistence agriculture, and farmers were asked to purchase high yield corn from institutional growers rather than use open-pollinated corn from previous seasons. More importantly, the existing tradition of labour-reciprocity was superseded by hierarchical management structures headed by individual community representatives, usually local elites.

Pressure from the USAID for empirical evidence of success drove NGO staff to concentrate directly on measurable, project-based improvements (hedgerows, check dams, and fertilizer use) to the neglect of improvements in the quality of life (democratic participation, physical health or economic sustainability). Although traditional highland farming techniques were less than perfect, a recent study confirmed that the combination of indigenous knowledge with project-based soil conservation and agroforestry results in significantly higher land productivity than either practice alone (White and Jickling 1995). Project Save The Land had few lasting achievements.

Many of the technical innovations brought to combat soil erosion and manage dwindling fuelwood sources were lost when the funding ended. Although traditions of labour reciprocity seemed convoluted at the outset of the project, they had at least allowed disadvantaged families to participate in the local economy and farm at the subsistence level. In contrast, project managers at the top of the administrative hierarchy rarely heard from disadvantaged families. "In the few instances that disapproval was received" writes one observer, "it was in the context of political unrest" (Jaffe, forthcoming). A growing number of impoverished farmers saw their yields decline, and since many could not supplement their income by working in rural areas, they were forced to give up land and migrate to the cities.

Even with migration to the cities, the amount of land available to each farmer in Haiti has decreased substantially over the last three decades. Both the amount of cultivated land per person and per agricultural worker decreased rapidly after 1970, even though the number of people involved in agriculture also decreased from 73 percent to 65 percent of the total labour force. In 1970, each Haitian farmer had about 0.43 hectares of cultivable land, though today each farmer has less than 0.35 hectares of cultivable land. Overall, the amount of cultivable land has diminished from 0.32 hectares per person to less than 0.20 hectares per person today (World Resources Institute 1994; World Bank 1997). Rapid population growth rates drove up the total number of people requiring land, forest, water and the number of agricultural producers. Environmental degradation drove down the cultivable amount of land and its productive capacity, inducing migration into Haiti's urban centres.

Conclusion: Migration and Collective Grievances

Mass migrations were not induced by every development project, and not all the people living in Haiti's slums are there only because of environmental degradation in the highlands. Political and economic factors also influenced the decision of individuals to leave rural areas. However, political tensions and economic conditions in many communities were the result of local environmental degradation, rapid population growth, and in-migration from other communities. Population growth itself has been an important source of pressure in Haiti.

In many Haitian communities, development-induced environmental degradation lowered the quality and quantity of forest, land and freshwater resources. This destroyed economic opportunities in rural agriculture and motivated the political demands for land reform and distributive justice, factors which are the most apparent cause of civil violence in Haiti. Severe environmental degradation, either as a direct consequence of large projects like the Péligre Dam or an indirect consequence of certain agrarian development strategies, induced a significant number of people to migrate into Haiti's urban centres. By destabilizing the ecology of rural areas where the population was growing rapidly, many families were unable to continue even subsistence farming.

When migrants brought their grievances to the streets of Port-au-Prince and the neighbouring slum of Cité Soleil they often found people with similar grievances. Here the desperate sense of collective impoverishment was fuelled, and since the mid-1980s mob anger against Haitian elites has regularly threatened to consume the streets with chaos and violence. The surplus of urban labour has grown much more quickly than the formal economy, and since rapid migration into the slums of Port-au-Prince and the district capitals continues, the potential for more violent conflict grows. ■

Notes

1. Estimates for the current population of Port-au-Prince range between 1.8–2.5 million, though the largest squatter settlement, Cité Soleil, has never been the subject of a comprehensive census.
2. In 1955, engineers reported that in the area to benefit from irrigation "the average dimension of worked land is 1.2 hectares." However, their report identifies 33,861 parcels of land in 32,000 irrigable hectares, and the average dimension of worked land should probably have been calculated at 1.06 hectares (Zamor 1983, 30).

References

Abbott, Elizabeth. 1988. *Haiti: The Duvaliers and Their Legacy*. New York, NY: McGraw-Hill.

Bryan, Anthony T. 1995. "Haiti: Kick Starting the Economy." *Current History* (February): 65–70.

Durand, Wilson. 1983. "Enquête sur la Production et la Commercialisation du riz dans la vallée de l'Artibonite." *Bulletin Agricole*, 19.

Frenette, M. et. al. 1982. "Cas Historique de Sedimentation du Barrage Péligre, Haiti." *Canadian Journal of Civil Engineering* 9, 206–23.

Jaffe, JoAnn. Forthcoming. "Underdevelopment By Design: How Agricultural Development Programs Increase Poverty and Inequality in Poor Countries—The Case of Haiti." *Canadian Journal of Latin American and Caribbean Studies* 21, no. 42.

Maingot, Anthony P. 1995. "The Political Rot Within." *Current History* (February): 59–64.

Mintz, Sidney W. 1995. "Can Haiti Change?" *Foreign Affairs* 74, no. 1, 73–86.

Organization of American States. 1963. *Inventory of Information Basic to the Planning of Agricultural Development in Latin America: Haiti*. Port-au-Prince: OAS.

Orenstein, Catherine. 1995. "Illegal Transnational Labor: Mexicans in California and Haitians in the Dominican Republic." *Journal of International Affairs* 48 (Winter): 601–24.

Perez, Federico Cuevas, and Jean René Bona. 1983. "Situation de la Riziculture Haiti." *Bulletin Agricole*, 9–10.

Schaedel, R. P. 1962. *Human Resources of Haiti: An Essay*. Port-au-Prince: U.S. Agency for International Development.

White, T. Anderson, and Jon L. Jickling. 1995. "Peasants, Experts, and Land Use in Haiti: Lessons from Indigenous and Project Technology." *Journal of Soil and Water Conservation* 50 (January-February): 7–14.

White, T. Anderson, and C. Ford Runge. 1994. "Common Property and Collective Action: Lessons from Cooperative Watershed Management in Haiti." *Economic Development and Cultural Change* 43, 1–41.

World Resources Institute. 1994. *World Resources 1994–95*. Oxford: Oxford University Press.

World Bank. 1997. *World Development Indicators*. CD-ROM.

Zamor, Guillaume. 1983. "Importance du Cadastre dans la Vallée de l'Artibonite." *Bulletin Agricole*. □

Sardar Sarovar Dam: A Case Study of Development-induced Environmental Displacement

Laurie Uytterlinde Flood

Abstract

This article discusses how the Sardar Sarovar dam in India is a case of a development project which causes environmental displacement on a massive scale. This occurs through evictions and indirectly through the impairment of livelihoods by environmental changes. The problems of resettlement and rehabilitation are emphasized in the article as are further displacement effects due to this process. The inequality between development beneficiaries and those who must bear the majority of the development costs is also addressed.

Précis

Cet article avance une argumentation selon laquelle le barrage du Sardar Sarovar en Inde est clairement un cas de projet de développement entraînant des déplacements de populations pour raisons environnementales sur une base massive. Le phénomène se manifeste sous la forme d'évictions et indirectement sous la forme d'une détérioration des conditions de vie due aux changements environnementaux. Le problème de la relocalisation des populations et de leur réhabilitation au milieu est mis en relief dans le présent article, ainsi qu'un certain nombre d'autres effets dus à ce processus de déplacement de populations. Les inégalités entre les bénéficiaires de ces projets de développement et ceux qui doivent assumer le gros des coûts du développement est aussi abordé.

The Sardar Sarovar Dam is a case of a development project which is both directly and indirectly causing environmental displacement on a massive scale. Moreover, this project is also setting the stage for further incidents of environmental displacement in the future through a combination of less than adequate resettlement and rehabilitation of displaced persons and a general lack of attention to potential environmental impacts of the project. As well, this project creates inequality between development beneficiaries and those who must bear the majority of the development costs.

Laurie Uytterlinde Flood is Graduate Student, Faculty of Environmental Studies, York University, Toronto.

Historical Overview

The Narmada River is India's fifth longest river, starting in the central Indian state of Madhya Pradesh and flowing west through the states of Maharashtra and Gujarat to the Gulf of Khambhat (see map). The Sardar Sarovar Dam is only one of a proposed thirty large dams—ten to be built on the Narmada itself, and the rest on its tributaries. In addition to these 30 major dams, the Narmada Valley Project also envisions 135 medium and 3,000 minor dams (Baviskar 1995, 199). Proposals for damming the Narmada have been around for many decades but were delayed until the mid-eighties because of political wrangling over the sharing of the costs and benefits among the three states (ibid., 199). The dream of political leaders and planning officials within Gujarat for many years, the Sardar Sarovar Dam Project finally commenced in 1987 (Morse and Berger 1992, 5).

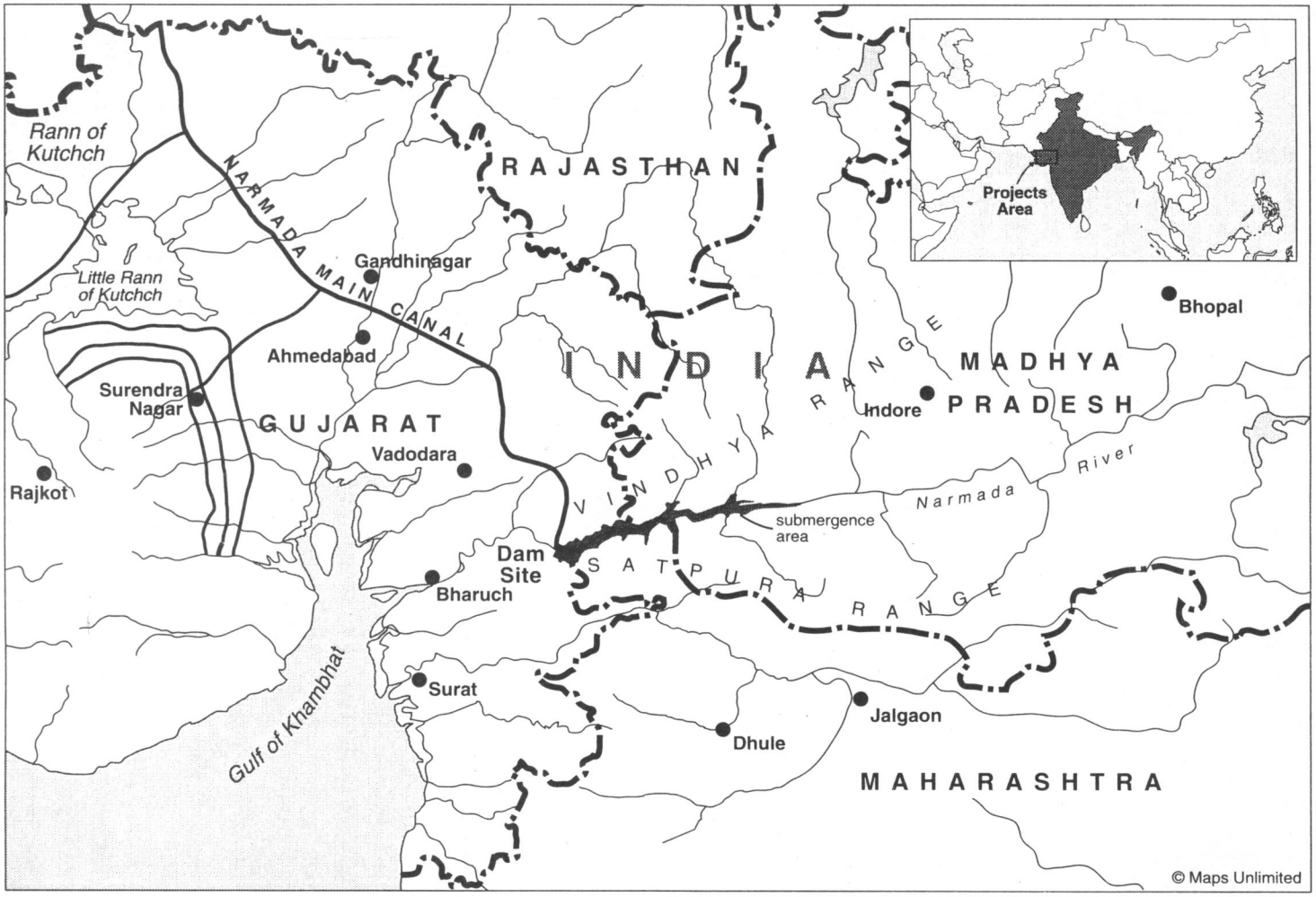
Dam building is integral to India's development vision, which until recently was modelled on the Soviet-style centralized, state-led economic development with an emphasis on industrialization (Hardgrave and Kochanek 1993, 354–55). Within this context, dams are ideal since they are amenable to top-down planning, provide tangible benefits to industrialization needs vis-à-vis hydroelectricity, and also to modernized agriculture in terms of irrigation (Savur 1995, 156). Indeed, Prime Minister Jawaharlal Nehru represented dams as India's "secular temples" (Morse and Berger 1992, 3).

The Sardar Sarovar Dam is the second largest project in the Narmada Valley in terms of both total area submerged and the numbers of people displaced (Baviskar 1995, 199). According to the independent review conducted by Bradford Morse and Thomas Berger for the World Bank, once completed the Sardar Sarovar Dam Project will submerge approximately 37,000 hectares of land for the reservoir, and approximately 80,000 hectares for the extensive canal works. It will displace at least 100,000 people who reside in approximately 245 villages. Approximately 140,000 additional farmers will be affected by the canal and irrigation system, and an unknown number of people, ranging somewhere in the thousands, will be affected by the disturbance of downstream fisheries (Morse and Berger 1992, xii-xiii).

Justifications for the Project

Sardar Sarovar is a classic example of a development project which is deemed to be "in the national interest." The justification given for this dam project is that it will bring enormous benefits to millions, whilst displacing relatively few people (ibid., 5). It will bring drinking water to about 40 million people living in the drought-prone regions of Gujarat. As well, it will provide irrigation to a vast area within Gujarat and 2 districts in Rajasthan, increasing the expected net value of their area's agricultural production sixfold (Morse and Berger 1992, xii, 5; Wood 1993, 974). In addition, the Sardar Sarovar Project will provide much needed hydroelectric power. These justifications are couched in the utilitarian terms of

The Sardar Sarovar Projects Area



Source: Bradford Morse and Thomas Berger, *Sardar Sarovar: Report of the Independent Review* (Ottawa: Resource Future International, 1992), xxvi.

balancing the needs of the many against those of a few.

Moreover, even the discomfort of the few is seen to be minimal according to many project proponents. The majority of people to be displaced by this project "are tribal people whose lands are said to consist of steep, rocky ground and degraded forests" (Morse and Berger 1992, 5). Thus, proponents say, not only is the land to be lost of marginal value, but this project can actually be seen as a development opportunity for displaced people since there is a resettlement component to the project[1] (ibid., 1992, 5–6).

It is possible that development-induced environmental displacement could be justified in certain cases where the people to be displaced were properly consulted beforehand, and then sufficiently compensated in ways acceptable to them. Michael Cernea proposes this justification in response to these ethical problems of displacement. Cernea argues that incidents of development-induced displacement are morally justified so long as the displaced persons are left no worse off than they were before the development project (Cernea 1993, 392). This justification entails an implicit moral responsibility on the part of states and international institutions to ensure the proper compensation of people displaced as a result of development initiatives.

It cannot be said that the Sardar Sarovar Dam is a case wherein all the victims are fully compensated, let alone a case wherein the different social groups are equally sharing in the costs and the benefits of the project. Rather, it is the most vulnerable social groups which are disproportionately carrying the burdens through loss of land and culture.[2] This is typical of the pattern of environmental displacement in that the *particular* people deemed "in the way" of national development are often the more vulnerable members of society (Bodley 1990, 137; ICIHI 1987, 53; Penz 1993). However, the fact that such practices are widespread does not make them ethical.

It is also disputable whether or not the development project can even be said to be in the public interest. The project will submerge fertile valley

land so as to irrigate a larger area of less fertile land elsewhere. It will potentially cause waterlogging and increase soil salinity. It will provide ideal sites for malaria-carrying mosquitoes to breed, causing potential health problems, and submerge a vast area of forest at a time when forest conservation is an acknowledged priority. In addition, it is questionable as to whether the dam can provide the amount of hydroelectricity which proponents suggest[3] (Baviskar 1995, 200; Savur 1995, 157–61).

The decision to build the Sardar Sarovar Dam is a policy choice—it is possible to decide not to build the dam. Moreover, there are alternatives to building the dam which could conceivably meet the stated development needs better than this project will. Alternatives could include a commitment to support grassroots research into drought-resistant crop species and environmentally-adapted planting methods, as well as supporting research into alternate energy sources.[4] In fact, there is a case to be made that such investments are the more crucial:

> Only 3 percent of India's energy needs are met by electricity, while biomass provides more than 50 per cent. Yet, in the Seventh Plan (1985-1990), Rs. 32,000 crores [the crore is an Indian counting unit: it equals 10 million] were allocated for the electricity sector, whereas the development of biomass resources received less than Rs. 2,000 crores. (Baviskar 1995, 27–8)

Electrical energy is used primarily by urban consumers, business, and for agricultural pumping, all at highly subsidized rates. The poor, who depend on biomass for all or most of their energy needs, do not benefit from this subsidy (Baviskar 1995, 28; Savur, 1995, 161–62).

Environmental Displacement

The displacement as a result of the Sardar Sarovar dam is "environmental" primarily because of one of two reasons. Either the people are being displaced as a result of their restricted access to the environment upon which they depend for their lives and livelihoods, or they are being displaced as a result of the development-induced deterioration of their environment to the point where it can no longer support them. While there are many different groups of people who are both displaced and made vulnerable to displacement as a result of this development project, approximately two-thirds of this number are *adivasis*—tribal people (Wood 1993, 975).

These displaced people include the following categories:

1) There are the "oustees," i.e. those who are being outright evicted to make way for the dam project. Included in this category are those who are not formally recognized as "Project Affected Persons," since they are being evicted to make way for the canal system, rather than the reservoir (Morse and Berger 1992, xv–xvi, 202–4).
2) There are those who are being displaced as a result of losing a part of the environmental resources upon which they depend for their livelihood. Included in this category are people who are:
   i) not actually losing their agricultural land to rising dam waters, but will be losing surrounding lands which they used for other important purposes (ibid., 147);
   ii) those who will potentially lose access to environmental resources as a result of catchment area reforestation plans (ibid., 62); and
   iii) those who will lose access to environmental resources as a result of the canal creating a physical barrier between themselves and those resources (ibid., 202–4);
3) Finally, there are those whose environment alters to the point of putting their economic livelihoods in jeopardy, including:
   i) downstream fishery-dependent people (ibid., 289); and
   ii) people who customarily occupy or utilize public land in areas which are targeted for rehabilitation sites and who as a result must share surrounding environmental resources with these additional people (ibid., 117–18, 164–66).

Environmental Victimization: Jeopardizing Lives and Livelihoods

In all of these cases, these are people who fit El-Hinnawi's definition of an environmental refugee since they "have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption," caused by the Sardar Sarovar Dam Project, "that jeopardized their existence and/or seriously affected the quality of their life" (El-Hinnawi 1985, 4). Although circumstances varied widely, and thus not all people were affected in the same way or to the same degree, in general, the dam project substantially affected people's economic livelihoods, their culture and their health. As a result, it seems highly unlikely that these environmentally displaced people, even with the aid of the resettlement scheme, will be fully rehabilitated to the standard of living which they were enjoying prior to the development project. This, of course, has ethical implications for this development project, which will be returned to later.

Economic Livelihoods

The Sardar Sarovar Dam Project affected people's economic security in some very fundamental ways. Many people who were directly displaced as a result of the project received no economic compensation whatsoever. People who were displaced as a result of the canal system, for example, were not considered to be covered under the 1979 Narmada Water Disputes Tribunal ruling concerning "oustees," and thus were not deemed to be entitled to resettlement (Morse and Berger 1992, xv–xvi). Indeed, many received little or no compensation for land lost, and no compensation for other resources, such as fruit trees, destroyed by the Sardar Sarovar project (ibid., 202–3).

For those who were supposed to be covered under the resettlement and rehabilitation program, there were still many forms of economic victimization. Many, if not most, of the people to be displaced by the development project were tribal "encroachers" on state land because they held no legal title to that land.[5] Both the state of Maharashtra and the state of Madhya Pradesh chose to interpret the Tribunal ruling regarding "oustees" to mean that only those with formal title to land, and their adult sons, would be given land for land, despite the fact that this would make tribal people, who hold their land by customary usage, landless oustees (ibid., xvii). What must be understood here is that landlessness is an economic disaster for these people's well-being since land is their source of subsistence and knowledge of their local environment is their major skill. As the Narmada Control Authority stated in 1984, "For tribals, there is no rehabilitation more effective than providing land as the source of livelihood" (ibid., xviii).

Even for those who are covered under the resettlement and rehabilitation segment of the development project, their economic security was in many cases jeopardized, even to the point of displacing some family members from one mode of production (that of cultivator) to another, more insecure, mode of production (that of wage earner). In many cases, land which was given was too little or of poorer quality (ibid., 81–194).

In addition, the resettlement and rehabilitation policy did not recognize other aspects of economic livelihoods. It did not take into account economic practices such as fishing, pastoralism, and gathering (ibid., 137). Also, the levels of economic productivity which result from local environmental and cultural knowledge has been, for the most part, ignored. Nor did the policy properly take into account the forms of economic security that arise as a result of people's social ties—"[p]eople attribute their economic security to a long established web of human and geographical links within their community" (ibid., 183). These links, of course, would be destroyed where the community was not resettled as a whole.

Perhaps most importantly, however, is the fact that even in the best-case scenario for resettlement and rehabilitation, the process of displacement precedes that of relocation and rehabilitation (ibid., 88). In other words, there is that period of time wherein people are living a transitory, double existence. There are relocation costs which often have to be paid out before compensation is given. There is also a readjustment period, wherein land must be made ready to cultivate, and the general quirks of a new and different environment adjusted to. Baviskar gives an example of one aspect of the transitionary impact that the Sardar Sarovar Project had on Anjanvara, the village she had lived in just prior to the dam project:

> A handpump for the village was sanctioned several years ago, but never installed because the village lies in the submergence zone of the dam. So the last few years and the present have been held captive to an uncertain future. (Baviskar 1995, 201)

All of these transitionary problems negatively impact on economic security. In some cases, they may even prove to cause yet further displacement in the future.

Culture

Many of these people are also victimized in terms of their cultural well-being. Perhaps the most important means of cultural victimization is the policy stance taken by both the state of Maharashtra and the state of Madhya Pradesh. "Oustees" have the choice of being resettled within their own state, but for many there is very little in the way of a real choice. Most "oustees" in these two states would be considered landless oustees (eligible only for a houselot) because they hold no legal title to land. However, in the state of Gujarat they would be given a minimum of 2 hectares of land. Also, the state of Gujarat has more land available in larger sections, allowing for the potential of at least some families or community groups to resettle together (Morse and Berger 1992, 46). However, in cultural terms, resettling in Gujarat is a loss. For many it would mean moving away from other important family and other social ties. As well, language would become even more of a barrier, since few tribal men and no tribal women know languages other than their own and even then it would be only the official language of the state that they live in (ibid., 134).

Resettlement threatens to culturally victimize people in other ways. These displaced people must adapt their lifestyle in that they are often "moving from relative isolation and independence to a high degree of dependence on public institutions and services to protect against disastrous consequences of the move" (ibid., 109). Also, the caste system and a general lack of social ties has meant that for those resettled, there is almost always little in the way of social bonding with other established communities in the area, leading to social isolation (ibid., 154–55). In all cases where people have resettled, they have expressed a feeling of loss over leaving their home and their gods. Included in this list of losses are even the basics of privacy—many women who were interviewed bemoaned the loss of privacy that the forest provides for bathing and performing their "ablutions" (ibid., 111).

Health

The physical and psychological well-being of all of those who experienced a drop in the standard of their living would potentially be threatened as a result of the resettlement process. As discussed earlier, the loss of one's culture, place, and economic security would certainly affect psychological well-being. And in many cases, even a temporary drop in economic livelihood could result in a loss of access to an adequate and nutritious diet, which would especially affect the health of the very young. "In 1988, the Tata Institute reported unusually high mortality rates among Manibeli oustees, especially children, for the first years

of relocation" (ibid., 156). Stress and anxiety which would result simply from the anticipation of having to move could quite possibly have both physical and psychological affects.

In addition, many of the resettled areas are lacking in basic infrastructure, such as working water pumps and proper, comfortable housing (ibid., 81–194).

Those Not Counted

In addition to those who are formally acknowledged as project "oustees," there are many others who are being displaced as a result of both the dam project and the project of resettlement and rehabilitation.[6] Arguably, the reasons why these people are not acknowledged as being displaced result from the same processes which de-legitimize both the cultural and ecological use patterns of the official "oustees." The main reasons for the difference between "official" and "unofficial" oustees are the legal rights and political visibility of the former and the latters' lack of these.

Patterns of Environmental Displacement

There are many aspects of this process of environmental displacement which are similar to that of other incidences of environmental displacement throughout the world as well as throughout history. Exploring these "patterns" helps to shed light on why development, which is supposed to be a beneficial process for all, often in actual fact causes both environmental victimization and displacement.

Legacy of Colonialism

The displacement of tribal people by the Sardar Sarovar Dam has been justified on the grounds that it provides tribal people with an opportunity for development (ibid., 5–6). The reasoning behind this justification parallels that of late-colonial "civilization" missions, which justified cultural and environmental displacement of indigenous peoples on the grounds that it brought the benefits of modern civilization to "backward" cultures. At first, colonialism concentrated on the gains to be made by such means as trading and outright coercive extraction. However, later on, colonialists became more interested, for various reasons, in the well-being of the remaining indigenous peoples within their colonial territories. Forced acculturation provided a means of gaining access to their land and natural resources, as well as a means of forcibly drawing them into the colonial economy—at the bottom rung (Bodley 1990, 7–15).

Modernization as a Continuation of "Civilization"

With regards to the Sardar Sarovar project, these environmentally displaced people are amongst India's most disadvantaged social groups. Most belong to social groups officially classified as either Scheduled Castes or Scheduled Tribes, meaning that these social groups are officially recognized as being socially disadvantaged as a result of discrimination and thus in need of government assistance for development (Hardgrave and Kochanek 1993, 188–89). While these Scheduled Castes and Tribes are given special government assistance, it is not to allow them a greater degree of autonomy and self-determination. Rather, it is meant to provide a temporary "shelter," so as to allow them some time to adjust to the modern world. This practice is a carry-over from Imperial British protection policies.

The Scheduled Tribes, for the most part, prefer to call themselves *adivasi*, which is Hindi for "original dwellers." While there is some controversy over how "tribal" these people are as a result of their coexistence with "non-tribal" people for centuries, for the most part, those living in the hills have maintained a distinct identity as a result of their relative isolation (Baviskar 1995, 86–88; Morse and Berger 1992, 68).

Others within India tend to view these Scheduled Tribes as being merely "backward Hindus" who are "backward" as a result of being poorly integrated into mainstream Indian society (Morse and Berger 1992, 65). This is extremely important in terms of justifying displacement since it aids in the legitimization of the imposition of economic development on tribal people as being "for their own good" (Bodley 1990, 117–25). Indeed, Morse and Berger referred to this perception of tribal people, quoting Vidyut Joshi, now of the Gandhi Labour Institute in Ahmedabad, that the displacement to be suffered by tribal people as a result of Sardar Sarovar "was part of the changes that other peoples have welcomed 'in the name of progress, development or modernization'" (Morse and Berger 1992, 65). Vidyut Joshi further stated that:

> This being so, why should any one oppose when tribal culture changes? A culture based on [a] lower level of technology and quality of life is bound to give way to a culture with superior technology and higher quality of life. This is what we call "development." What happened to us is bound to happen to them because we both are part of the same society. I have extensively travelled in tribal areas for the last twenty years and I have observed their behaviour. I have formed the opinion that tribals want to change (ibid., 65).

The Sardar Sarovar Dam as Unethical Development

Development is supposed to be beneficial. It is supposed to be the creation of a better life. Within the context of a nation, the state is supposed to be committed to the development of the people as a whole. It has a responsibility to ensure an equitable distribution of the costs and benefits of development projects, especially when they are state projects. Yet the potential benefits of the creation of the Sardar Sarovar Dam are to accrue to a better-off segment of Indian society—those who can afford electricity[7] and those who hold land in Gujarat or Rajasthan which would become properly irrigated as a result of the development project. In turn, the costs are largely being born by an already disadvantaged segment of society—Scheduled Castes and Scheduled

Tribes. Many members of these groups do not have formal title to their lands and therefore little recourse to mainstream legal channels when it comes to compensation. This leaves the vast majority of displaced people with practically no bargaining power over their fate.

Although there are provisions to resettle and rehabilitate at least some of the people who will be displaced as a result of the Sardar Sarovar Dam, resettlement still generally means a drop in the quality of living. (An exception are those resettled in the "model" sites which proponents of the dam project have topping the tour list.) The resettlement and rehabilitation project, which is supposed to be a "development opportunity," is, in actual fact, undermining the economic livelihoods and quality of life of these people. Over the long term, this might even mean further displacement as essential needs are not met. As such, resettlement is not improving the standard of living as defined by the displaced people themselves. In addition, there are all those who, though harmed in various ways by the dam project, are not receiving even the inadequate compensation of rehabilitation, because they hold no formal title to the land or waters that they use for economic livelihood purposes.

Conclusion

The Sardar Sarovar Dam is a case of a development project which is both directly and indirectly causing a massive amount of environmental displacement. This displacement is not limited to the present. Rather, the effects of both the dam project and its accompanying resettlement and rehabilitation project are setting the stage for further displacement by increasing people's economic vulnerability. Those who must bear the majority of the development costs in this project were neither properly consulted, nor compensated in ways acceptable to them. Moreover, the Sardar Sarovar Dam is development on the backs of the poor, as the people being displaced are amongst India's most vulnerable and disadvantaged social groups. For these reasons, the Sardar Sarovar Dam project cannot be considered to be ethical development. ■

Notes

1. This argument ignores the state's role in contributing to the environmental degradation and deforestation of India's forest lands. (See Amita Baviskar, *In the Belly of the River*, 1995, 137–49, for a detailed explanation of the state's role). This blame-the-victim approach to the existing environmental degradation allows the state's role in reforestation as a necessary part of the medium- to long-term success of the Narmada Valley Project to remain plausible.
2. Amita Baviskar (1995, 219–22) points out that there is another social group, the Patidars in Nimar, which is being displaced. While this somewhat complicates the issue of social justice, I do not think that this completely undermines the thrust of the vulnerability argument. The Patidars are landowners who will receive a much fairer amount of compensation than either the *adivasi* (i.e., tribal) hill dwellers or the adivasi and other wage labourers. In addition, there is a case to be made that both groups are being victimized by city electricity-users and wealthy Gujarati farmers.
3. In addition, it is questionable that the irrigation component will be entirely successful. Venkata Reddy (1990) has extensively documented the myriad of practical problems which inhibit the success rate of large-scale dams.
4. For suggestions of alternative energy sources, see Manorama Savur (1995).
5. Encroachment is a product of colonial state forestry practices, which redefined property rights. The practice of shifting cultivation, which allowed land to be replenished, was frozen in time to the particular plot that was in use when "legal holdings" were measured. As well, these holdings were smaller than that necessary for ensuring total food requirements, since shifting cultivation was supplemented with secondary forest products (whose use is also now illegal). The soil, which is not suited for sustained use, plus the small total amount of legal holdings, requires that these people make use of supplementary, "illegal" plots (Baviskar 1995, 150–51).
6. Morse and Berger (1992, 117, 164–66) report instances wherein people are resettled on land which had been "encroached" upon by others.
7. This is somewhat modified by the extensive amount of illegal tapping of electricity in India. However, these illegal sources of electricity are by no means secure.

References

Baviskar, Amita. 1995. *In the Belly of the River: Tribal Conflicts over Development in the Narmada Valley*. Delhi: Oxford University Press.

Bodley, John H. 1990. *Victims of Progress*. Mountain View: Mayfield Publishing Co.

Cernea, M. 1993. "Disaster-related Refugee Flows and Development-caused Population Displacement." In *Anthropological Approaches to Resettlement: Policy, Practice, and Theory*, edited by M. Cernea and S. E. Guggenheim, 376–97. San Francisco: Westview Press.

Doria, Radheshyam. 1990. Environmental *Impact of the Narmada Sagar Project*. New Delhi: Ashish Publishing House.

El-Hinnawi, E. 1985. *Environmental Refugees*. Nairobi: United Nations Environment Programme.

Hardgrave, Robert L., and Stanley A. Kochanek. 1993. *India: Government and Politics in a Developing Nation*. Toronto: Harcourt Brace Jovanovich College Publishers.

Independent Commission on International Humanitarian Issues. 1987. *Indigenous Peoples: A Global Quest for Justice*. London: Zed Books.

——. 1986. Refugees: *The Dynamics of Displacement*. London: Zed Books.

Morse, Bradford, and Thomas Berger. 1992. *Sardar Sarovar: Report of the Independent Review*. Ottawa: Resource Futures International Inc.

Penz, Peter. 1993. "Colonization of Tribal Lands in Bangladesh and Indonesia: State Rationales, Rights to Land, and Environmental Justice." In *Asia's Environmental Crisis*, edited by Michael C. Howard. Colorado: Westview Press.

Reddy, Venkata. 1990. *The Dynamics of Irrigation Water Management*. New Delhi: Ashish Publishing House.

Savur, Manorama. 1995. "Let us Not Dam Development." In *Contradictions in Indian Society*, edited by Manorama Savur and Indira Munshi, 153–74. Jaipur: Rawat Publications.

Wood, John R. 1993. "India's Narmada River Dams: Sardar Sarovar Under Siege." *Asian Survey* 33, no. 10 (October): 968–84. □

Dam Politics in Northern Nigeria: The Case of the Kafin Zaki Dam

Kole Ahmed Shettima

Abstract

Considerable political contention has developed over the dams and large-scale irrigation schemes in northern Nigeria. The reasons are the resettlement of people that they require as well as their environmental effects, their economic inefficiency and other social consequences. This article discusses these issues with reference specifically to the Kafin Zaki Dam proposal, challenging the conventional image of an alignment of international organizations and domestic elites on one side and grassroots forces on the other. The conclusion is that the political contest is carried out essentially at the elite level and that state and international agencies at times do oppose mega-projects that displace people and disrupt ecological processes.

Précis

Des démêlés politiques considérables se sont développés autour de la question des barrages et de l'irrigation à grande échelle au Nord-Nigeria. Les raisons en sont: les relocalisations de populations que ces projets entraînent, leur impact sur l'environnement, leur inefficacité économique, ainsi qu'une kyrielle d'autres conséquences sociales. Le présent article aborde ces questions en se référant spécifiquement au cas du projet de barrage du Kafin Zaki, et remet en question la conception conventionnelle d'un face à face sur cette question entre les organisations internationales et les élites locales d'un côté et les forces du terroir de l'autre. La conclusion est plutôt que le conflit politique se livre principalement au niveau élitaire, et que les agences nationales et internationales en viennent avec le temps à s'opposer à ce type de mégaprojet qui déplace massivement les populations et perturbe profondément le processus écologique.

Kole Ahmed Shettima is Adjunct Professor of Political Science, Department of Political Science, University of Toronto, Toronto.

Introduction

Large scale irrigation schemes and dams dot the landscape of northern Nigeria. There are criticisms of these projects, funded in the 1970s. Problems identified include economic inefficiency, class-bias, health hazards and environmental effects (Watts 1987). However, the issue of resistance to irrigation and dam projects and especially the role of factions of international agencies and some parts of the state has not been explored in this regard. Indeed, most of the literature on irrigation schemes in northern Nigeria has only focused on the negative roles of international and national agencies (ibid., 1987).

There are many examples of international agencies, multilateral and bilateral, playing negative roles of environmental destruction. However, in the case of the Kafin Zaki Dam project in the Yobe Basin, these agencies worked together to successfully to stop construction, in conjunction with some parts of the Nigerian state and Nigerian organisations. This case study questions the assumption of monolithic states, governments and international agencies prevalent in much of the development studies literature.

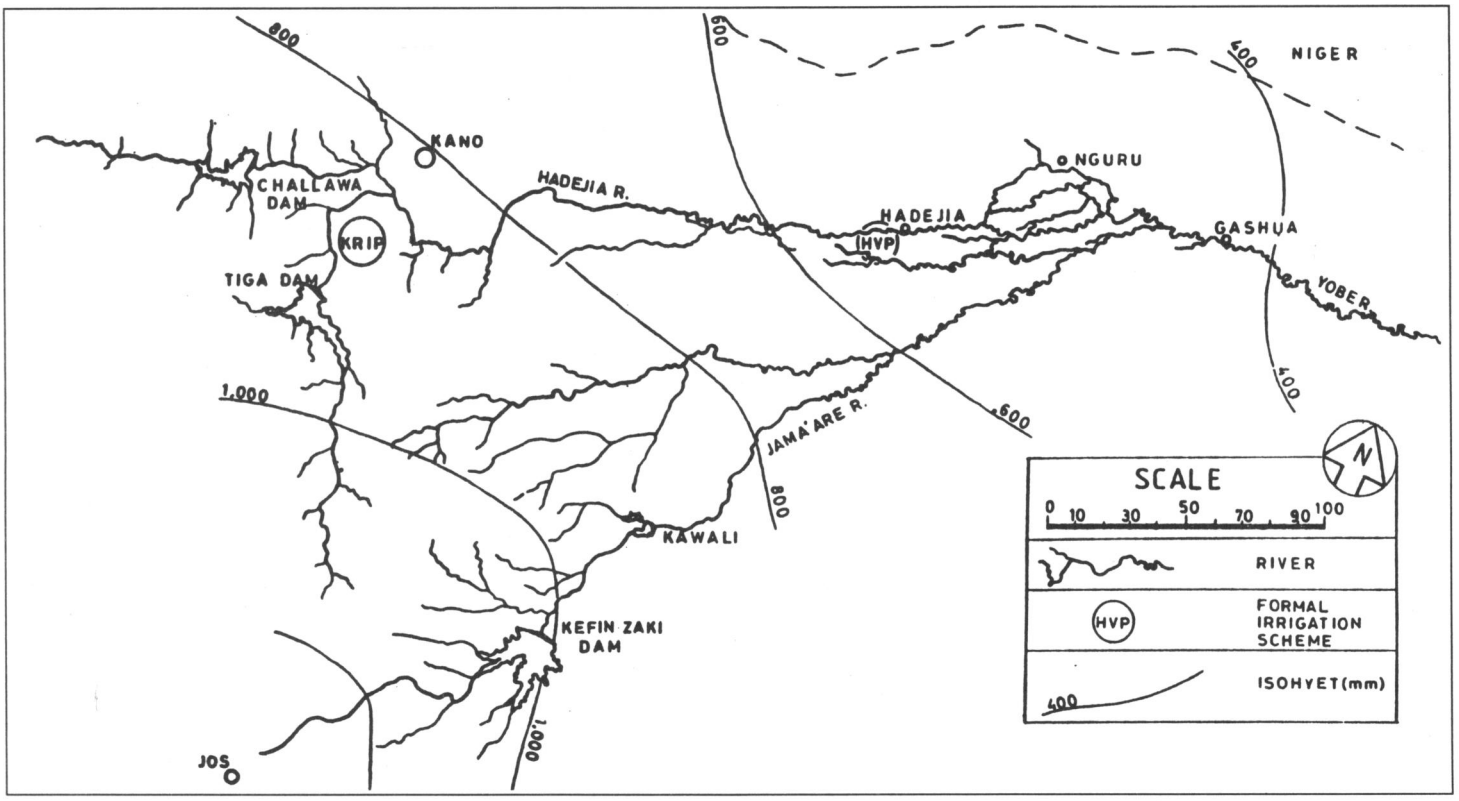
The Geography and Ecology of the Yobe Basin

The Kumadugu River's Yobe Basin is located in the northeast of northern Nigeria and covers about 9 percent of the country's land. Kumadugu Yobe has a catchment area of about 85,000 square kilometres. Its three main tributaries are the River Hadejia, the River Jama'are and the Kumadugu Gana. The Hadejia has the largest catchment area of 30,000 square kilometres at the western end of the basin, the Jama'are has 20,000 square kilometres and joins the Hadejia near Gashua to form the Hadejia-Jama'are. The River Hadejia-Jama'are meets the Kumadugu Gana near Geidam to form the Kumadugu Yobe (NEAZDP 1990, 9).

Nearly all of northern Nigeria is an ecologically sensitive zone. Desert expansion is the most serious environmental hazard. In recent years as much as 38 percent of the land is lost to desertification, and about 30 million people have been affected. The rate of desertification can be as high as 35 kilometres per year. In the 1972–73 drought alone, cattle mortality was at 20 percent. These ecological shifts are due to climatic changes, population increase and livestock pressure. According to the World Bank (1990, 17), human activities rather than climatic changes are the most significant causes of environmental variation. They include bush burning, human population movement, overgrazing and the increased use of mechanical methods of land clearing. Apart from these factors, major causes of environmental stress are engineering and agronomic biases of water resource development and management (Gadzama 1991, 9).

Ecological realities coupled with regional politics, "developmentalism," nationalism and the oil boom have been invoked to make a case for dam reservoirs in northern Nigeria. The construction of water reservoirs are meant for urban water supply and large scale irrigation projects. In the Yobe Basin, there are twenty-two dams existing, under construction and proposed with a catchment area of 31,303 square kilometres (NEAZDP 1990, 16). Traditionally, surface water, wells and small dams have been used for urban water supply. Similarly, flooding, *shadoof* (a suspended pole with a bucket at one end and a weight at the other), wells, *calabash*, and other hand-held-bailer irrigation methods

The Upper Komadougou-Yobe Basin



Source: Hadejia-Nguru Wetlands Conservation Project and the National Institute for Policy and Strategic Studies, *Workshop on the Management of the Water Resources of the Komadugu-Yobe Basin,* Kuru, 1st-2nd April 1993 (Kuru: National Institute Press, 1993), 35.

have been used in agriculture. Later, diesel-driven pumps and tube wells were introduced for the purpose of small-scale irrigation.

There are three major dams in the upstream region of the Yobe Basin. These include Tiga, Challawa and Bagauda. All these dams are around Kano. They provide water to the city of Kano and the Kano Irrigation Project Phase 1. The biggest of the dams is Tiga which was constructed 1971–74 (NEAZDP 1990, 16). River regulation has potential beneficial effects of reducing harmful flooding of agricultural land downstream, but could have the negative effects of undermining flooding of the large *fadama* (flood plain) on which millions of people depend for traditional agriculture and irrigation, livestock grazing, and the recharging of the aquifers. Social conflicts due to loss of livelihood and the threat of displacement are some of the consequences.

The Kafin Zaki Dam Proposal

The damming of the river systems in northern Nigeria has instigated debates on the merits and demerits of such projects. A case in point is the Kafin Zaki Dam. On the one hand, a disparate interest group has been doggedly championing the cause of the project. On the other hand, a loose strategic alliance of various institutions, individuals and organisations, foreign and domestic, successfully lobbied against the construction of the Kafin Zaki Dam. I shall name and discuss the groups in the debate on the merits and demerits of damming in the Yobe Basin, and the strategies and arguments invoked.

The Kafin Zaki Dam has an intellectual origin in the Schultz report funded by the Canadian International Development Agency and an earlier study funded by the United States Agency for International Development (HNWCP and NIPSS 1993, 19; NEAZDP 1990). The 1972–74 drought in the Sahel was the proximate impetus for the project. But it was only during the Shagari regime (1979–83) that a contract was awarded for the project to Julius Berger, a German construction company. In 1984, the Buhari regime (1984–85) terminated the contract as part of its budgetary control measure, but that decision was reversed in December 1992 by the Babangida regime (1985–93). The latter requested Julius Berger to continue the project at a cost of N10 billion.[1] It was expected that on completion of the project an area of 84,000 hectares would be irrigated. In 1994, the Abacha regime (1993–present) terminated the contract and later appointed a judicial commission of inquiry under Justice Sanusi Ciroma Yusuf. The Commission was mandated to look into the origin and scope of the project, the manner and worth of its contract, as well as the role of staff in the Ministry of Water Resources and

Rural Development (*New Nigerian* April 8, 1993).

Support for the Kafin Zaki Dam

The argument in support of the dam is led by a powerful interest group. The Schultz report intellectually rationalises the need for the project while Julius Berger, the most important construction company in Nigeria, lobbies in its support. Most of the important constructions in Abuja, the new federal capital, are executed by the company. Indeed, the new capital is often referred to as Berger city. Similarly, the company has on its board some of the most powerful individuals in the country.

Another important source of support for the project is political/bureaucratic. In December 1992 when the government authorised the company to proceed, the Minister responsible for water resources was Abubakar Hashidu. Hashidu was the former General Manager of the Hadejia-Jama'are River Basin Development Authority. In fact, the contract was awarded within the last week of his tenure as Minister. In addition, both Hashidu and the then Governor of the Central Bank, Abdulkadir Ahmed, come from the area where the projects are located.

Geopolitically, the dam is situated in an area which has always provided political support to the mainstream of northern Nigeria politics. They also belong to the Hausa-Fulani ethnic group. In contrast, the downstream users in Yobe and Borno states are labelled as minority ethnic groups. Politically, this group generally supports parties that oppose the mainstream of northern Nigerian politics.

The support for the project is invoked by bureaucrats using nationalist rhetoric. Irrigation is justified as a strategy for national food security. The alternative to irrigation is characterised as undermining national self-reliance. For example, in reaction to criticisms of the project Aminu (1991, 1805) accuses the critics of Kafin Zaki Dam of needlessly involving environmental issues and losing sight of the benefits of the project. The problem, according to the government, is drought and not irrigation schemes. This conclusion was reached despite the fact that the Ministry has not carried out environmental impact surveys. Dubious figures are officially used to minimise the impact of the projects on the downstream users, e.g. that the Kafin Zaki Dam is only 10.6 percent of the catchment area of the Yobe Basin. Furthermore, faith is placed in technology: better utilisation through controlled releases. In a concluding commentary by Aminu (1991, 1805), even environmentalism is again appropriated: "we will also ensure that the environment is fully protected, including the Ngwu [sic] Wetland which provides sanctuary to the migratory birds from Europe during the winter months." Aminu is deliberately mentioning Europe because the article he was referring to was written by a European.

Opposition to the Kafin Zaki Dam

Much of the prominent opposition to the project comes from the Nigerian Conservation Foundation (NCF), Borno and Yobe state governments, the North East Arid Zone Development Program (NEAZDP), the Hadejia-Nguru Wetland Conservation Project (HNWCP), and the Federal Environmental Protection Agency (FEPA). International agencies such as those of the European Union and the World Bank are also opposed to the project. The alliance does not involve grassroots organisations but works primarily through the structures of the state to influence policy makers. The NCF consists of some of the top elite of Nigerian society. For example, the former chair of the National Transitional Government, Ernest Shonekan (August–November 1993), was a former chair of the NCF. A. P. Leventis, of the Leventis conglomerate, is chair of the Scientific Committee of the NCF.

The NEAZDP is partially funded by the European Union and is implementing several other projects in the country. The HNWCP is a collaborative project of the Royal Society for the Protection of Birds, the Nigerian Conservation Union, the Finnish Association for Nature Conservation and the World Conservation Union. The World Bank is also funding a small *fadama* (flood plain) irrigation project which covers some of the area in the Yobe Basin that could be negatively affected by the Kafin Zaki Dam. The Dam restricts the water that would have been used for small-scale irrigation projects. The FEPA is the environmental watchdog of the government. At the time of strong opposition to Kafin Zaki, the chairperson of the board of the FEPA was Bukar Shaib who is an indigene of the area most likely to be negatively affected by the dam construction.

Opposition to the project is based on technical, economic and environmental arguments. In a meeting initiated by the NCF with Ernest Shonekan, the NCF argued that, while controlled release could have a beneficial effect to downstream users, the technical efficiency and management of the Kafin Zaki Dam is suspect in light of previous experiences with similar projects. There is no guarantee that there is the technical and managerial capacity to release an adequate, timely water supply to downstream users. For example, when the Tiga Dam was completed, the Federal Government guaranteed 1,350 million cubic metres of water to pass through Gashua annually but this has not been implemented (HNWCP and NIPSS 1993, 3). In fact, even farmers in the upstream of the Kano River Project suffer great losses. Similarly, the Challawa Gorge Dam was closed in 1992 without any warning to the downstream users, leading to massive losses.

The economic problems relating to the dam have been identified as high capital cost, low yields, underestimation of the volume and values of existing production, high management costs, and especially poor returns for small irrigating farmers. The Kafin Zaki project is at best a "cathedral in the desert," just like its counterparts in many other parts of the country. The returns of the project promise to be

minimal based on previous experiences. For instance, the three major irrigation schemes in northern Nigeria, Bakolori, Kano River Project and South Tchad, were expected to irrigate 320,000 hectares and 2 million hectares in 1982. But by 1982, the actual irrigated land was 30,706 hectares. By this same year, on the other hand, 800,000 hectares were irrigated by seasonal flooding. A study by Barbier (NEAZDP 1992, 4) shows that net benefits in wetland small-scale irrigation are N239 per hectare compared to only N19 per hectare in the irrigated area of the Kano River Project. If the net benefits are assessed in terms of water productivity, then the net benefits per 1,000 cubic metre of water used in the wetland is N31.80 while in the Kano River Project it is N1.10. Indeed, studies by Kimmage and Adams (1992) have shown the superiority of indigenous use of wetlands in terms of not only the economics of production but ecological sustainability. (The comparison is made because of the negative impact Kafin Zaki would have had on small-scale irrigation in the wetlands).

NEAZDP, which more than any other organisation worked quietly to protect the Yobe Basin, estimates that current loss in production due to the dam from rice, small-scale irrigation, livestock production and fisheries at N730 million to N1.35 billion per year. The potential loss to production due to the dam from small-scale irrigation, livestock production, and fisheries is between N1.65 billion to 3 billion per year in 1990 in the Yobe state alone. Yobe and Borno States, two major states that provide livestock in the country, will be adversely affected. It is estimated that 1.5 million cattle and other livestock are in danger.

There are international dimensions of the economic losses as well. Hundreds of Niger Republic small-scale-irrigation cultivators and pastoralists depend on the flow of the river (NEAZDP 1992). Similarly, the implementation of the project would worsen the budgetary situation and damage the relationship between Nigeria and its creditors who would not see any basis for debt relief (Ogbonnaya 1993a, B1-2; Ogbonnaya 1993b, B4).

The ecological and human impact of the Kafin Zaki Dam project would have been very serious. In many cases, dams have resulted in extensive displacement, costly resettlement and discontent among those who are resettled. Other negative impacts include the collapse of traditional farming practices, its replacement by more vulnerable monocultural agriculture, threat to fishing, destruction of the wildlife sanctuaries in the wetlands and especially the Nguru and Dagona bird sanctuaries, and threats to transhumance (Synge 1991, 1536).

There are various experiences of water loss due to large dams in northern Nigeria. For example, when the Tiga Dam was completed in 1976, the river flow at Gashua was reduced by about 100 million cubic metres per year by irrigation and by more than 50 million cubic metres by evaporation. If the Kafin Zaki Dam is constructed it would result in the reduction in flow at Gashua by 1,275 million cubic metres per year. Moreover, Kafin Zaki would stretch 17 kilometres and create a reservoir of 235 square kilometres which would evaporate up to 450 million cubic metres of water per year. The losses due to evaporation to downstream users would be US$1 million per annum (Martin 1993, 2; NEAZDP 1993, 2–3; Thompson 1993, 12). This is a major loss of water.

The construction of the Kafin Zaki Dam would have negatively affected ground water recharge in the basin. The recharging of the Tchad aquifer depends on the flood of the River Jama'are. The consequences of a disruption would be the shortage of water for human consumption, livestock and small-scale irrigation. The livelihood of about three million people would be jeopardised in Borno and Yobe states alone.

There are several other implications of the effects of the Kafin Zaki Dam. Identity conflicts would be intensified in the region, especially between pastoralists and small-scale-irrigation farmers. The pastoralists may be forced to migrate southward towards the Middle Belt which would only intensify the existing conflict in the region. Rural-urban migration would increase. This would only compound the current situation and probably lead to further social conflicts. On the other hand, pressure on *tudu* farming (upland), which is already overstretched, would increase. The lack of flow of the river system would only accelerate the process of sand dune formations and these would increase the process of desertification.

While the opposition to the project has a formidable argument, the alternative has not been clearly defined. There is, however, a wide feeling that there must be a mechanism to harness the water resources of the Yobe Basin by a single agency. At present the Yobe Basin is under the jurisdictions of the Chad Basin River Development Authority and the Hadejia-Jama'are River Basin Development Authority. This has led to several difficulties. For example, when the latter decided to close the Challawa Gorge Dam, this was not communicated to the former. Secondly, there is a need for a national policy on water resources. Thirdly, the opposition expects independent environmental reviews of projects (NEAZDP 1993).

Conclusion

This article shows that, while in many instances state and international agencies play a destructive role by funding mega-projects, this is not always the case. The politics of the Kafin Zaki Dam proposal shows that factions within these structures at times play a progressive oppositional role as the socially and environmentally disruptive effects become apparent. ■

Notes

1. The value of the Nara to US dollar was: N10 to US$1 in 1990, N21 to US$1 in 1992, and N85 to US$1 in 1996.

References

Aminu, Abdul Ganiyu. 1991. "Livelihoods at Risk." *West Africa* (October 28–November 3): 1805.

Gadzama, N. M. 1991. "Sustainable Development in Nigeria's Dry Belt." In *Sustainable Development in Nigeria's Dry Belt*, edited by K. O. Ologe, 5–18. Ibadan: NEST.

HNWCP (Hadejia-Nguru Wetlands Conservation Project), and NIPSS (National Institute for Policy and Strategic Studies). 1993. *Workshop on the Management of the Water Resources of the Komadugu-Yobe Basin.* Kuru: NIPSS.

Kimmage, Kevin, and W. M. Adams. 1992. "Wetland Agricultural Production and River Basin Development in the Hadejia-Jama'are Valley, Nigeria." *Geographical Journal* 158, no. 1, 1–12.

Martin, Alice. 1993. "Lake Chad in Danger of Disappearing." *New Nigerian on Sunday* (May 2): 7–8.

New Nigerian. 1993. (April 8): 16.

NEAZDP (North East Arid Zone Development Program). 1990. *Water Resources Report.* Damaturu: NEAZDP.

——. 1992. *Water Resources in the NEAZDP Area.* Gashua: NEAZDP.

——. 1993. "Report to the Committee on Water Management in the Komadugu Yobe Basin." Damaturu: NEAZDP.

Ogbonnaya, Obasi. 1993a. "Dams of Death." *The Guardian on Sunday* (August 1): B1–B2.

——. 1993b. "Those Dams Could be Damming." *The Guardian on Sunday* (April 18): B4.

Synge, Richard. 1991. "Livelihoods at Risk." *West Africa* (September 16–22): 1536.

Thompson, Henry. 1993. "Damming Nigeria's Wealth." *World Rivers Review* (Fourth Quarter): 12–3.

Watts, Michael, ed. 1987. *State, Oil and Agriculture in Nigeria.* Berkeley: University of California.

World Bank. 1990. *Towards the Development of an Environmental Action Plan for Nigeria.* Washington: The World Bank. □

The Green Revolution: Socioeconomic Insecurity and Agricultural Displacement in India

Mia Biasucci

Abstract

This article discusses the Green Revolution, ostensibly implemented to address food insecurity in India. Instead, it deepened transitory food insecurity as well as systematically compounded exploitative systems of labour, landholding and capital distribution to the detriment of peasant and landless agriculturalists. The project increased the economic risk of agricultural labour and the instability of the sector as a whole. For these reasons, issues surrounding the impact of the Green Revolution inherently involve economic, social and ecological displacement and migration to urban and food-surplus areas. A secondary displacement effect involved the impact of the Green Revolution on forests. Irrigation to support it required dams and canals that displaced people outside the market-oriented agricultural sector. The Green Revolution is thus shown to have had both primary and secondary displacement effects.

Précis

Le présent article aborde la question de la Révolution Verte, mise en place en grande pompe pour faire face à l'insécurité alimentaire en Inde. Contrairement aux attentes, la Révolution Verte a accentué la dépendance envers les sources alimentaires de transition. Elle a de plus servi à étroitement fusionner entre eux les éléments du système d'exploitation de la force de travail, de la propriété foncière et de la distribution des capitaux, et ce au détriment des paysans et des travailleurs agricoles sans terre. Le projet a accentué la précarité économique des travailleurs agricoles et a perpétué l'instabilité économique de la totalité du secteur. Pour ces raisons, il s'avère que les questions concernant l'impact de la Révolution Verte sont inséparables du problème des déplacements de populations à motifs économiques, sociaux ou écologiques, et de la migration vers les zones urbaines et les zones détentrices de surplus alimentaires. Un second type d'effet de ces déplacements concerne l'impact de la Révolution Verte sur les forêts. En effet, l'irrigation visant à servir de support à cette entreprise a nécessité la mise en place d'un ensemble de barrages et de canaux qui ont causé le déplacement des populations à l'extérieur de la zone agricole exploitable commercialement. Il est démontré ici que la Révolution Verte a des effets à la fois immédiats et secondaires sur le déplacement des populations.

Mia Biasucci is Graduate Student, Faculty of Environmental Studies, York University, Toronto.

Introduction

Throughout the relatively short life span of international development, theorists and practitioners alike have extolled its economic, political and social virtues. More recently, however, development theory and praxis have been criticized as being socially polarizing on both global and local levels, technologically inappropriate, imperialistic, and, specifically within the Indian context, causing *himsa*, or violence (Alvares 1994, Shiva 1991). The Indian subcontinent has been historically plagued with both chronic and transitory forms of food insecurity. Although these conditions are most often attributed to droughts and the highly variable monsoon season, development has also played a significant role. The Green Revolution was ostensibly implemented to address this insecurity; however, it instead deepened food insecurity as well as systematically compounded exploitative systems of labour, landholding and capital distribution to the detriment of peasant and landless agriculturalists. The project increased the economic risk to cultivators and the instability of the sector as a whole. Part of the impact of the Green Revolution is economic, social and ecological displacement and migration to urban and food-surplus areas. A secondary displacement effect of the Green Revolution resulted from its irrigation dams and canals; they displaced people outside the market-oriented agricultural sector. These two displacement effects will be discussed in turn.

The Green Revolution in India

The Green Revolution is the acknowledged favourite child of the second development decade (1960s), celebrating the progress of genetic technologies and Western science. The period is also demarcated by support for neo-Malthusian ideology and the emergent concept of food security, focusing on the interrelationship between food and population. According to the World Bank, the Green Revolution is considered to be "the most widely and rapidly adopted technology in agricultural history" (Byres and Crow 1988, 163). By concentrating on the broad agricultural bases of Southern nations, the project aimed to increase (particular) crop yields in order to also increase export earnings. Tacitly it thereby incorporated a greater number of agriculturalists into the global commercialization of agriculture.

In India, the Green Revolution was driven by three main factors. First, India's status as a relatively newly independent country heightened the drive for national food self-sufficiency through a fuller market integration of agriculture. Food production has long been regarded as the "Achilles heel" of India. The feudal history of *zamindars* and *jagirdars* (landlords) persisted into the post-colonial period in various incarnations, and gross inequities in

landholding and labour relations continued to characterize the agricultural sector. Attempts at reforms tended to replace established community support systems, such as sharecropping, with national market-oriented redistribution schemes and were largely unsuccessful. Second, and related to the latter point, the classification of India as a food-deficit nation in the mid-1960s indicated the failure of the (stagnating) agricultural sector in meeting the needs of the populace, demonstrated by widespread hunger as well as acute famines in the eastern provinces. American involvement in India is the third factor that drove the Green Revolution. The food aid required during this period was mainly supplied by the United States as part of an aid package, which concurrently stipulated the deepening of American presence within the agricultural capital market. The receipt of American aid was also predicated upon the Indian government's lifting of nationwide price ceilings on privately produced fertilizer for a period of seven years. This supported the increased presence of U.S. multinational chemical fertilizer companies in the Indian market. Thus, emergent agricultural constraints, coupled with the government's acknowledged priority regarding food self-sufficiency, led to the Green Revolution—supposedly to develop Indian agriculture, but also to pander to American corporate interests (ibid., 1988).

The Green Revolution and Poor Agriculturalists

The theoretical scale-neutrality of the project appeared ideal for the highly fragmented landholdings of the Indian countryside. The high-yielding variety (HYV) seeds were to produce substantial productivity gains independent of the size of the plot to be cultivated. However, such yields were predicated upon the ability of farmers to purchase necessary chemical fertilizers and pesticides (as the new seeds were not as hardy as the traditionally cultivated strains), in addition to their access to intensive irrigation. Although the Indian government implemented subsidies on fertilizers and pesticides, as well as invested in substantial irrigation projects, access to these means of production was far from equitable.

The emphasis on expensive but necessary biomechanical methods practically excluded small peasant farmers. Large and medium peasant farmers were able to accommodate the cost, whereas the small peasant farmer was generally forced to buy on credit or not at all. The increased yields lowered the price of HYV crops on the market, making it impossible for the small farmer to repay loans as well as reinvest money capital into the next season's seeds, fertilizers and pesticides.

The HYVs were developed without concern for economic, social, and, least of all, ecological context. The cultivation of HYVs was tremendously dependent on scale—not necessarily the physical amount of land that one owned, but the amount of resources which could be diverted to invest in the Green Revolution. The ability to do so was the crucial factor in determining who benefited. If we use this as a point of departure to vulnerability to hunger and economic instability, then we can see that it is the poor farmer who bore the brunt of inequitable production and distribution, and thus was most susceptible to becoming increasingly impoverished and to experiencing socioeconomic crises. The main point that this article aims to make here is that impoverishment effectively limits prevention of such crises or recovery from them (Anderson and Woodrow 1993, 134).

Although the relevant literature offers many statistics supporting the Green Revolution's positive effect upon the net output of food production in India, it is critical to acknowledge, first, that the risk variable of production increased substantially, and second, that the proportions of certain crops within the recorded total were altered significantly.

The unpredictability of yields, the first impact mentioned, was not only related to climatic factors, as the extension of irrigation systems in India more or less provided a reliable source of water for the HYV crops. (According to Sarma, the performance of Indian agriculture during the Green Revolution, especially regarding the more significant [wheat] yield increases in the northwestern provinces of Punjab and Haryana, was largely due to increased irrigation; it explains about 75% of the growth in crop output [Sarma 1982, 26; Mellor 1992, 42]). The new technology was dependent upon precise and timely applications of fertilizers and pesticides which would determine the ultimate failure or success of an individual farmer's harvest. The increased risk of HYV crops, coupled with the necessary capital expenditures and the levels of indebtedness among poor farmers, made this technology unattractive for the latter. For this reason, the provinces which had the largest productivity gains generally also possessed marked disparity (Mellor 1992, 45), indicating that the main engines of growth were the large and medium farmers. Also, there are dramatic high and low agricultural productivity periods, especially with regards to wheat and rice (the banner crops of the project), since the implementation of the Green Revolution (from the late 1960s to the mid- to late 1970s).

Secondly, during the period of the Green Revolution the "inferior" cereals mainly consumed by the poor were plagued by the onset of significant and unprecedented negative growth rates (Chattopadhyay 1991, 79). In addition, the other staple food of the poor, pulses, also registered sharp, consistent negative growth since the 1960s. This is significant because even slight harvest deficits can provoke extensive social crises (Wijkman and Timberlake 1984, 132).

Although these variations in agricultural production were not only influenced by the Green Revolution, the most differential rates of growth occurred during that period. The technology was essentially biased towards the production of cereals, such as rice and wheat, which catered to the global market over established Indian subsistence needs. Also, there was a tech-

nological bias towards, and remarkable growth of, the foodgrains which require substantial irrigation over "inferior" grains and pulses which can be cultivated in drier, less fertile areas. The latter actually registered negative growth in some cases (Chattopadhyay 1991, 81; Sarma 1982, 25).

Market Effects and Impoverishment

Although agricultural production of foodgrains did increase over the period of the Green Revolution overall, it is evident that the increase was not substantial enough to assure long-term food security or national self-sufficiency, let alone stabilize the agricultural labour market. It appears that the Green Revolution has remedied India's food deficit status but the surpluses which have been created are subject to uncertainty. Statistics illustrate that the post-Green Revolution period is characterized by sharp peaks and dramatic shortfalls, often within back-to-back growing seasons (Etienne 1988; Sarma 1989). According to Sarma (1989, 152), "exports in the agricultural sector have essentially been in the nature of disposal of residuals created due to low per capita income and low consumption demand of certain essential commodities." In other words, the inequalities among regions and castes which the Green Revolution failed to tackle made the surpluses for export possible. It should be noted that the increased irrigation, chemical fertilizers and pesticides also exacerbated environmental problems, as HYV technology was often inappropriate for Indian ecological systems (Reeves and Cohen 1992, 44).

In the national market, agricultural prices were driven down by increased production. Even the non-HYV strains and the nutritious crops which can be grown on poor land and are less susceptible to climatic variability became less profitable to cultivate as they lost ground to competition from the HYV crops, establishing a pattern of steady decreases of returns to the small nonparticipating farmer. This also contributed to geographic disparities since only some kinds of land were suitable for Green Revolution cultivation. This process undermined the income that poor agriculturalists could obtain in the market.

Three visible categories of poor farmers were created during the Green Revolution: those who participated in the project; those who did not but produced rice and wheat; and those who did not do the latter and cultivated crops not addressed through the project. All received less income from the sale of their crops. In the first two groups, the sudden increase of HYV grains in the market dropped the sale price of those grains, whether or not they were HYV (the market makes no distinction). The third group suffered as their produce became comparatively more expensive.

Impoverishment and agricultural displacement can be usefully analyzed using Amartya Sen's (1981) entitlements theory. Entitlements are the total set of endowments which can be exchanged for commodity bundles, including products such as food. This makes it possible to see hunger as not only the result of food availability decline due to drought and other disasters, but also as a market-dependent phenomenon linked to impoverishment—rising food prices, unemployment, ecological degradation, insufficient wages, inflation and terms of trade for peasants. This gradual and extensive process whereby people are stripped of their exchange entitlements to consumption resources shapes their vulnerability.

What this period overwhelmingly witnessed was the proletarianisation and entitlement loss of the small farmer and the landless agricultural worker as well as the overt "increase in the number and proportion of landless households, growing concentration of land and assets in fewer hands, and widening disparity between the rich and poor households" (Dasgupta in Gillespie and McNeill 1992, 39). Also, food production became divorced from nutritional concerns through the loss of crop diversity and the access of the poor to agricultural produce, increasing the risk of mal- and undernutrition.

Likewise, the increasing polarization of wealth and resources within the agricultural sector is directly linked to increased levels of poverty and the related inability to purchase food in sufficient amounts and of adequate nutritional quality. Even though India is widely regarded as the main national success of the Green Revolution, as Gillespie and McNeill (1992, 39) note, "increases in agricultural productivity were accompanied not only by increases in food production, but also by an increased risk of undernutrition for people within certain social groups."

Rural Impoverishment and Displacement

This vulnerability is vital to understanding the link between the Green Revolution and agricultural displacement in India. The technological inappropriateness of the Green Revolution displaced multitudes of small producers from their land and from their previous positions as producers. Such displacement is indirect in that it does not involve eviction; it is mediated by market prices and involves a choice that the family has to make about the nature of its livelihood. But it is a primary displacement effect in that it occurs within the sector in which the technology is introduced, i.e. agriculture. The displacement of poor cultivators is thus primary but indirect.

The factors behind landlessness and displacement are the decreasing returns on production-initiated cycles of borrowing and subsequent inability to pay creditors and the gradual stripping of entitlements through the sale of endowments, such as land and livestock, in order to meet basic needs. As Alvares notes, the aftermath of the Green Revolution has been marked by increased social inequity: "One of the forms this took was land alienation ... the displacement of tenants, marginal and small farmers by richer peasants. The Green Revolution effectively drove them into indebtedness" (Alvares 1994, 44). Although

biotechnology indicates the creation of employment, this did not materialize to the point at which these workers could be permanently absorbed.

A more conservative estimation of the situation is offered by B. P. Singh (1988, 21), who notes that the consistent absence of opportunity to overcome the constraints imposed by low agricultural profitability and small land parcels leads to pervasive insecurity, inducing migration out of rural areas. Also, since the nature of agriculture implies seasonal labour, those who did find work had to rely on local agricultural labour markets and became exposed to its insecurities. If work could not be found locally, farmers usually migrated to the food surplus areas in hopes of finding work. The displaced farmers who could not find employment generally chose to migrate to urban areas where food subsidization programs, food distribution systems and food aid were in effect.

The increased risk associated with the cultivation of HYV crops and the loss of crop diversity within production do not in and of themselves inevitably lead to displacement; the outcome depends not only on the economic relations of production, but also upon the social context within which those relations occur. As Krimgold notes, "a disaster is a crisis situation that outstrips the capacity of a society to cope with it" (Anderson and Woodrow 1993, 133). Ostensibly, insecurity occurs within a context lacking in comprehensive government policies and redistributive systems.

It is also important to remember that vulnerability is not a sudden phenomenon; insecurity deepens over an extended period of time. It implies not only the inability of individuals to accumulate sufficient exchange entitlements, as mentioned earlier in this paper, but also the inability of communities and geographic areas to do so. Communities have intrinsic adaptive social relations which prevent or at least mitigate the impact of crises; growing economic risk and displacement of members represent the stifling of these systems to function adequately. The concept of flexibility under stress is also important here: "The ability to move; a choice in types and varieties of cash and subsistence crops; a choice of markets for crops or livestock in a drought ...; alternative ways of making money ...; and government insurance schemes" (Wijkman and Timberlake 1984, 31) are also mitigating factors in the severity of vulnerable circumstances. Changing economic activity and migrating are thus not only effects of displacement, but also coping mechanisms.

When one considers the ramifications of the Green Revolution, the issue of displacement within the agricultural sector is not usually addressed. This is the less obvious consequence of socioeconomic insecurity if one considers displacement to be the manifestation of long-term vulnerability. The Green Revolution, despite its honoured place within development discourse, exacerbated inequities in agricultural production to the point that poverty, hunger and rural-urban migration increased among poorer agriculturalists.

In development discourse, vulnerability to the loss of land, to hunger, and to unemployment is generally reduced as economies "expand and diversify." However, the Green Revolution increased monocropping and introduced participating farmers to volatile global market prices and the risk associated with export-oriented agriculture. Land alienation and the proportion of the landless among agriculturalists increased substantially (Field 1993, 15–16). These consequences are usually hidden within the aggregate economic growth statistics by which development measures its success. In a single sweep, the harmful effects of development are discursively erased. As witnessed in the Green Revolution, the intensified suffering of the poor is traded for economic development for the higher strata of society. According to Alvares (1994), this phenomenon illustrates the allocation of economic and social resources to a vague notion of national development instead of to the subsistence needs of the people, highlighting the often diametric opposition between economic progress and basic needs.

Irrigation, Deforestation, and Displacement

The displacing effect of the Green Revolution also carried over into non-agricultural sectors such as tribal subsistence economies. The colonial "wastelands," as Vandana Shiva (1995, 210) notes, were productive lands, providing basic nourishment to the millions of subsistence agriculturalists and tribals in India as well as landless peasants migrating from overcrowded open field villages. Thus, the relationship of these areas to the Green Revolution is also significant. Not only did the forests accommodate the displaced farmer, they also lost ground to technological requirements of the Green Revolution. To quote at length:

> ... with the onset of the so-called Green Revolution, farmers in many parts of India switched to a new mix of agricultural technologies which in fact reduces their dependence on forest resources. With the state providing water, electricity, fertilizers and machinery at highly subsidized rates, the country's landscape has been dotted with pockets of fossil fuel agriculture, and the production of food and other cash crops for the urban market. Ironically, while chemical agriculture has (for its practitioners) reduced dependence on living resources, it has at the same time provided a powerful impetus for the destruction of forests through the construction of large dams for irrigation and power generation. (Gadgil and Guha 1993, 222)

In contrast to the previously described process of primary indirect displacement, the displacement occurring in "wastelands" and forests is secondary but direct. It is secondary in that the displacement occurs in a sector other than the one in which the technology is introduced. The Green Revolution is introduced to agriculture, but it has effects outside the agricultural sector. Displacement is direct in that hydro and irrigation projects involve in the first instance actual evic-

tions of local people or prohibitions on their uses of forests and wastelands and thus direct restrictions on their livelihoods.

Both tribal and persons displaced from agriculture are becoming increasingly vulnerable as forests are reconceptualized as economic resources to fuel development. Instead of being seen for what they are to the peasant and the tribal person, they are regarded for what they could become to the government, by being exploited for the purposes of development (Alvares 1994, 211; Shiva 1991). The process has been occurring as available agricultural land is shrinking on a per capita basis (Venkateswarlu 1987, 91), thereby increasing the need for more intensive agricultural development. This intensiveness involves an even greater amount of irrigation and utilization of other Western methods and leads to increasing conflicts over water resources (Shiva, 1991). It is a process that reveals the nature of development: it begets more development.

Socioeconomic Polarization

During times of crisis, not everyone is placed at risk. Factors such as status, class, wealth, gender and access to information all determine the range of one's choices. They determine the intensified conflict over resources between those who are able to maintain their exchange entitlements to those resources and those who are not. By threatening subsistence production, development generates conflicts over resources and communal disharmony. The conflict is between the customary endowments and entitlements regarding the use of the resources and their moral legitimacy, on the one hand, and the legally encoded rights in the context of development and market relations, on the other.

It is the organization of the state and its relationship to development which either increases or decreases peoples' vulnerabilities. The interests that development serves as well as its dependence on the existence of replicable projects places local concerns at the margins of practice; development thus tends to aggravate rather than reduce vulnerability. This applies particularly to the employment of the new agricultural technology. Moreover, in the context of international economic relations, development projects aimed at ameliorating conditions in the South are often shaped to serve private Western interests. The effect again is to intensify vulnerability.

Conclusion

In spite of the development experienced during the Green Revolution in India and the success attributed to it, hunger is still rampant and is greater than at its onset in some regions and among many small cultivators. With its focus on large and mid-size farmers and the improvement of their conditions, it did not serve social justice. In fact, the Green Revolution had deleterious consequences for the rural poor. This occurred through two effects. Primary indirect displacement of poor agriculturalists resulted from lower prices for their produce and a lack of productivity improvements due to the unattainability of Green Revolution technology; the consequences were impoverishment, increased hunger, the forced sale of land and movement into other economic activities and often to other areas. Moreover, as the agricultural sector became more tightly bound to larger markets and their volatility, there was increased insecurity and further displacement. The second effect was the secondary direct displacement of those dependent on forest resources by the state's appropriation of those resources for modernized agriculture. The combined impact has been a divergence of living conditions and their security for those affected by the Green Revolution. This means that such polarization and the displacement that accompanies it is central to the debate on the implications of development in the South. When development is reconceived as a cause of social vulnerability, its rationale and approach must be reexamined. Social justice must be part of any justifiable conceptualization of development. ■

References

Alvares, C. 1994 . *Science, Development and Violence.* Delhi: Oxford University Press.

Anderson, M. B., and P. J. Woodrow. 1992. "Reducing Vulnerability to Drought and Famine: Developmental Approaches to Relief." In *The Challenge of Famine,* edited by J. O. Field, 131–46. West Hartford: Kumarian Press.

Byres, T., and B. Crow. 1988. "New Technology and New Masters of the Indian Countryside." In *Survival and Change in the Third World,* edited by B. Crow, 163–81. New York: Oxford.

Chattopadhyay, B. 1991. *Food Insecurity and the Social Environment.* Calcutta: K.P. Bagchi & Company.

Etienne, G. 1988. *Food and Poverty.* New Delhi: Sage Publications.

Field, J. O. 1993. "Understanding Famine." In *The Challenge of Famine,* edited J. O. Field, 11–29. West Hartford: Kumarian Press.

Gadgil, M., and R. Guha. 1993. *This Fissured Land.* Berkeley: University of California Press.

Gillespie, S., and G. McNeill. 1992. *Food, Health and Survival in India and Developing Countries.* Delhi: Oxford University Press.

Mellor, J. R. 1992. "Green Revolution Reduces Hunger in India." In *Hunger 1992,* 42–49. Washington: Bread for the World Institute on Hunger & Development.

Reeves, D., and M. J. Cohen. 1992. "Equity, Ecology, and Alternative Agricultural Technologies." In *Hunger 1992,* 44–47 Washington: Bread for the World Institute on Hunger & Development.

Sarma, J. S. 1982. *Agricultural Policy in India: Growth with Equity.* Ottawa: IDRC.

——. 1989. "Status with Regard to Production and Availability in Agricultural Surpluses for Export." In *Indian Agro Exports,* edited by F. S. Jasol, 151–55. New Delhi: Viva Photographers.

Sen, A. 1981. *Poverty and Famines.* Oxford: Clarendon Press.

Shiva, V. 1991. *Ecology and the Politics of Survival.* New Delhi: Sage Publications.

Shiva, V. 1995. "Resources." In *The Development Dictionary,* edited by W. Sachs, 206–18. London: Zed Books Ltd.

Singh, B. P. 1988. *Betrayal of Rural India.* Delhi: B. R. Publishing Corporation.

Venkateswarlu, J. 1987. "Ecological Crises in Agro-Ecosystems." In *India's Environment,* edited by J. Bandyopadhyay, 91–109. Dehra Dun: Natraj Publishers.

Wijkman, A., and L. Timberlake. 1984. *Natural Disasters.* Washington: Earthscan. □

Protecting Nature and Displacing People

Peter Vandergeest

Abstract

We usually think that national parks, wildlife sanctuaries, and other areas reserved for the protection of nature are good things but the displacement effects of protected areas have made them highly controversial in many parts of the world. However, many environmental groups see an expanded protected areas system as central to the preservation of both biodiversity and the "charismatic megafauna" which are the basis of their funding drives. Based on a discussion of the historical roots of protected areas, the globalization of nature protection and local people in conservation, this article offers alternatives to the displacement of rural populations in the name of nature conservation.

Précis

On se représente généralement les parcs naturels, les sanctuaires de vie sauvage et autres zones orientées vers la protection de la nature comme étant une bonne chose. Il s'avère cependant que l'impact sur le déplacement des populations du à ce type de zones protégées a fait de ces dernières des objets de virulentes controverses dans plusieurs régions du monde. Mais malgré tout, de nombreux groupes environnementaux considèrent qu'un système élargi de zones protégées est crucial pour la préservation de la biodiversité et de la "mégafaune charismatique", qui sont les deux motifs majeurs de leur financement. En s'appuyant sur une discussion des fondements historiques de la mise en place des zones protégées, et de la mise en commun des priorités de protection de la nature et de préservation des populations locales, le présent article suggère des solutions alternatives au déplacement des populations rurales au nom de la Conservation de la Nature.

Peter Vandergeest is Assistant Professor of Sociology, Department of Sociology, York University, Toronto.

Paul Moore helped to gather information for this paper, and Luin Goldring provided critical comments on a earlier draft. The opinions expressed are all the responsibility of the author.

Protected Areas and Population Displacement

We usually think that national parks, wildlife sanctuaries, and other areas reserved for the protection of nature are good things. Many environmental groups see an expanded protected areas system as central to the preservation of both biodiversity and the "charismatic megafauna" which are the basis of their funding drives. Many people living in North American countries do not realize that the displacement effects of protected areas have made them highly controversial in many parts of the world.[1]

The international conservation movement, led by the World Conservation Union (IUCN), has put the expansion and proper management of a global protected areas system at the core of its activities. Although estimates of the total area classified as protected varies depend on what counts as truly protected, IUCN publications show that somewhere between 6 and 10 percent of the world's terrestrial surface is now protected (McNeely et al. 1994; World Conservation Monitoring Center 1997) and that there are about 10,000 major protected areas, up from 2000 such areas twenty years ago (Pretty and Pimbert 1995, 5). The area classified as protected continues to increase rapidly today. For example, the Thai government increased the area demarcated as national parks and wildlife sanctuaries from about 9 percent of national territory in 1986 to 18 percent in 1996 and has set a long-term goal of 25 percent of the terrestrial surface of the country (Vandergeest 1996, 261). The government of Laos has recently gazetted 18 Biodiversity Conservation Areas covering about 10 percent of the country, following the recommendations of the IUCN (McNeely et al. 1994, Addendum; World Conservation Monitoring Centre 1997; Intavong 1996).

This approach to conservation is based on the idea that "nature" is an object outside of humanity, an idea of nature which is widely considered to be an invention of Europeans and Americans (Evernden 1992; Guha 1989). This is true of both the scientific, mechanical vision which provides the conceptual basis for the state agencies which manage many protected areas and of the romantic vision of nature which underlies the North American preservationist movement (Guha 1989; Vandergeest and Dupius 1996). The model for managing protected areas disseminated by international conservation organizations, particularly the IUCN, has faithfully reflected this assumption until quite recently. Thus most countries adopted laws and policies for managing protected areas which either dramatically circumscribed or banned livelihood activities inside protected areas (Pretty and Pimbert 1995).

Many of the countries with high proportions of their territory classified as protected are relatively poor and contain large rural populations dependent on natural resources for their livelihoods. Estimates given by the World Conservation Monitoring Centre (1997) show the following figures (which under-report protected areas in Thailand and perhaps other countries as well): Belize (14% of national territory), Botswana (19%), Cambodia (17%), Dominican Republic (22%%), Ecuador (24%), Malawi (11%), Namibia (12%), Panama (17%), Rwanda (12%), Senegal (11%), Sri Lanka (12%), and Tanzania (15%) (World Conservation Monitoring Centre 1997). Although population densities may be

low, these areas are typically inhabited and used by rural people. Thus the classification of large areas inevitably produces widespread displacement of local populations. The result has been a series of controversies and violent conflicts which belie the benign and pacific image of third world wilderness protection often portrayed in nature shows and fundraising drives in North America.

The Historical Roots of Protected Areas

Although the standard account of the history of protected areas usually traces it directly to Yellowstone and the American National Park ideal, this approach to nature conservation has a more complex history than just the progressive spread of the American wilderness ideal. First, the notion of the park and the emphasis on wildlife preservation among some environmental groups can be traced to hunting preserves created by aristocratic classes in Europe and, to a lesser extent, South Asia (Gadgil and Guha 1993, 86, 107–8). Although we usually think about the English enclosure movement as the displacement of peasants to make room for sheep, this same movement also enclosed spaces reserved for sport hunting for male aristocrats, eliminating popular access to these forests. Anyone who has watched some of the recent movies based on Jane Austen's books might have noticed that sport hunting remained important for elite English men into the 19th century.

As England became a colonial power, colonial officials used sport hunting to demonstrate English manhood and racial superiority and subsistence hunting to facilitate imperial expansion through the provision of food for their expeditions (MacKenzie 1988; Neumann 1995). Colonization was accompanied by the massive slaughter of wildlife especially in Africa, but colonial hunters blamed the resulting decline of wildlife populations on livelihood hunting by local populations. Their solution was regulations banning hunting methods other than those they considered sporting and the demarcation of game reserves where strict regulations limited popular access. This solution thus drew on the history and culture of the enclosures in England, transferring the idea of the British elite private park to Africa (Neumann 1995). In many parts of colonial Africa, local people were displaced or forced to resettle to make way for game reserves. Although a second generation of wildlife enthusiasts later moved away from sport hunting to sport photography, their legacy for the international conservation movement was one of intolerance for local use of protected areas and for the methods of practical hunting such as traps and snares.

The second history contributing to the protected areas approach has been that of the American-Canadian national park. The world's first and most famous national parks, including Yellowstone in the United States and Banff in Canada, were intended to preserve areas of wilderness in the face of the disappearing American frontier. They were chosen to preserve natural areas whose grandeur and timelessness could be linked to the grandeur of the nation.

Unlike the game reserve movement, the national park movement in North America was based on the elimination of all human activities except observation. In the case of Yellowstone, for example, native inhabitants were either moved to reservations or were driven out by the army (Pretty and Pimbert 1995, 5). The romantic, ascetic, and Calvinist John Muir was even more convinced about the need to separate human use from wilderness areas than were the milder technocrats associated with conservationist Gifford Pinchot. The preservationist vision identified with John Muir and American National Parks continues to inform most efforts to expand protected areas around the world (Guha 1989). This vision was made possible by the Euro-American image of wild America as either free of people altogether or inhabited only by "wild" people who could be domesticated by relocation into permanent farming communities.

Like the colonial game reserves, then, national parks were tied to policies displacing local populations to make way for nature and wilderness. In the case of national parks, however, the object was to make these areas available for viewing by middle-class urban citizens. The more popular basis of national parks made this designation a more useful one than game reserves for mobilizing urban support for the expansion of protected areas. The model was thus quickly adopted by the colonial wildlife preservation movement, and, in areas where tourism was important, game reserves were made into national parks (MacKenzie 1988, 262–92).

A third important strand which contributed to the modern protected areas model were state policies claiming valuable resources for the state and the model of scientific forestry adopted by colonial and post-colonial forest departments. Forests provided valuable resources in the form of timber, firewood, and non-timber forest products for colonial governments. Colonial governments claimed valuable forests as state property by gazetting them as reserve forests and placing them under the jurisdiction of state forestry departments. Most reserve forests were created not to protect wilderness, but to maximize the production of timber and other valuable resources by the application of scientific forestry. In many of these forests local populations practiced a swidden agriculture, also labelled "slash and burn" by its detractors. Swidden practices included cutting and controlled burning to create temporary farming plots in the forest, practices which were incompatible with scientific management for timber and firewood. As a result, forestry officials were usually extremely intolerant of local livelihood activities. These same forestry officials were often among the most enthusiastic hunters, which reinforced their disdain for rural people.

Colonial officials trained members of the colonized elite as foresters.

These foresters took over forestry departments after decolonization and maintained the basic approach and attitudes of their former bosses. In many countries, protected areas have been created out of reserve forests and placed under the jurisdiction of forestry departments. Many of the officials who today manage these national parks, wildlife sanctuaries, and other protected areas categories are thus trained as foresters and consider local people as a threat to the integrity of the forest. This is in turn linked to the way that many state agencies continue to see the creation of protected areas both as a way of claiming valuable resources, such as income from international tourism (Peluso 1993), and as a way of obtaining international support for extending their control over territory and rural populations (Vandergeest 1996).

The Globalization of Nature Protection

Although it is possible to trace other influences on the modern protected areas model, these three should suggest why an approach which marginalizes or excludes local populations has become deeply ingrained. The approach has been written into the laws and policies governing protected areas around the world. The first such legal model was the 1933 Convention for the Protection of Flora and Fauna of Africa, also called the London Convention. This convention created standard definitions for national parks, a model for creating categories of protected wildlife species and guidelines for hunting restrictions (MacKenzie 1988, 217).

Although specific definitions have since been revised, the basic approach set up by this Convention has been the basis for protected areas laws and policies throughout the world. The approach has obtained the support of many environmentalists and ecologists for whom human activities such as hunting, trapping, cutting, burning, and agriculture are incompatible with biodiversity and protecting wildlife. More than this, governments looking for ways to simplify their administration of rural populations and gain access to funding and resources are now among the strongest supporters of this approach. In other words, preservationism is no longer just American, as Guha (1989) argued, but has become global, with support among diverse groups, and written into the laws, institutions, and practices which comprise protected areas around the world.

Local People in Conservation

Many environmentalists working in the third world have now launched a critique of this approach, arguing that local people, far from being destroyers of nature, are conservers of nature (Guha 1989; *Watershed*). These critics point out that livelihood activities can often increase biodiversity by increasing ecosystem diversity and that most so-called natural areas have been transformed or managed by local people for a long time. For example, clearings made in forests for swidden agriculture are important for large mammals, and protected areas managers in tropical countries who succeed in preventing these activities often have to create these clearings themselves. Critics of the model also argue that local people dependent on forests and local ecosystems for their survival have strong incentives for protecting these ecosystems. The conclusion is that local people should be included in the planning and management of protected areas and should certainly not be displaced from these areas.

The combination of this critique and the seemingly unresolvable conflicts which always seem to accompany the creation of protected areas has induced many international conservation organizations to endorse new approaches to protected areas planning. Some key features of this new approach are: first, that protected areas should be made economically attractive to local people by, for example, replacing lost livelihoods by including local people in the benefits obtained from protected areas; second, that the declaration of protected areas should be accompanied by rural development projects which allow for limited use of resources in buffer zones and other demarcated areas; and third, that protected areas planning should include participation by local people. Organizations like the World Wide Fund for Nature (formerly World Wild Fund, WWF) now have number of projects in which they are trying to implement this approach, while the IUCN, the World Bank, the United Nations Development Programme (UNDP), and other major international organizations want to see words like local participation in proposals drawing on funds like the Global Environmental Facility (GEF). Conservationists are now also looking for successful examples of protected areas which do not exclude local people.

It remains to be seen whether the major international conservation organizations can in fact change an approach which is so deeply ingrained in the history, the laws, culture, and practices of many thousands of protected areas. While organizations like the WWF have many projects trying out ways of involving local people, these projects represent only a very small fraction of the thousands of protected areas around the world. In the vast majority of protected areas, the old approach prevails, and many conservationists and environmental organizations are not convinced by the new approach. More than this, major recent additions to the global protected areas system are in practice based on the old model, despite the rhetorical attention given to words like participation. For example, the recent gazetting of an enormous area of Laos as Biodiversity Conservation Areas took place with very little input from rural people. These areas are part of Lao government policies which aim to stop deforestation—which official state policy blames on swidden agriculture—by resettling upland rural people into lowland villages where they are supposed to practice modern, permanent farming. In Thailand, a recent proposal for major GEF funding includes substantial funding for military

equipment (guns, helicopters) to be used for guarding protected areas (Vandergeest 1996, 265). This highlights what I believe will be a major obstacle to the implementation of a new approach: the commitment of many state agencies in poor countries to the old, exclusionary approach to protected areas as a way of gaining access to international funding to facilitate better control over territory and rural people.

Where projects have included participation, the terms under which this participation takes place is often defined by the basic protected areas model. Thus many IUCN staff now argue for allowing livelihood uses in protected areas, but only if they are "traditional." Since the definition of traditional is often very narrow, many existing uses are not included, and the definition of what should be allowed is often determined by states or international conservation groups rather than through discussions with local users. My experience in Thailand shows that even local environmentalists who argue for turning over the management of protected areas to local people are often ready to endorse laws limiting livelihood uses to those defined as traditional, partly because they believe that rural people embody a critique of modernity.

Another approach would be to rethink the current emphasis on the expansion of protected areas rather than just rethinking how protected areas are to be managed. Protected areas create islands of nature, while environmental degradation outside of these areas proceeds apace. This degradation is driven by high consumption by the same urban middle and elite classes who support the expansion of national parks and wildlife sanctuaries in the name of wilderness protection. In the long run, protected areas cannot be isolated from global environmental changes anyway. Some ecologists are predicting widespread destruction of forests if or when global warming begins to set in. In other words, the islands of nature approach might be self-defeating in the long run. Moving away from the protected areas approach would help move the international conservation agenda to a more broad based approach to ecosystem maintenance, one not limited spatially by protected areas. This would have the added benefit of avoiding the injustices produced by the displacement of rural populations in the name of nature conservation. ■

Notes

1. Sample readings on the displacement effects of protected areas include West and Brechin's (1991) edited volume; Pretty and Pimbert's (1995) overview; Laungaramsri and Rajesh (1996) and Vandergeest (1996) on Thailand; Stycos and Duarte on the Dominican Republic; Neumann (1995), Peluso (1993), and McCabe et al. (1992) on Africa.

References

Evernden, Neil. 1992. *The Social Creation of Nature.* Baltimore: The Johns Hopkins University Press.

Fitter, Richard, and Sir Peter Scott. 1978. *The Penitent Butchers.* London: Fauna Preservation Society.

Gadgil, Madhav, and Ramachandra Guha. 1993. *This Fissured Land: An Ecological History of India.* Delhi: Oxford University Press.

Guha, Ramachandra. 1989. "Radical American Environmentalism and Wilderness Preservation: A Third World Critique." *Environmental Ethics* 11, 71–83.

Intavong, Chanataviphone. 1996. Cited in Laungaramsri, Pinkaew, and Noel Rajesh, "Redefining Conservation: A Critique of Protected Areas in Thailand." *Watershed* 1, no. 2, 27.

Laungaramsri, Pinkaew, and Noel Rajesh. 1996. "Redefining Conservation: A Critique of Protected Areas in Thailand." *Watershed* 1, no. 2, 14–28.

MacKenzie, John M. 1988. *The Empire of Nature: Hunting, Conservation and British Imperialism.* Manchester: Manchester University Press.

McCabe, J. Terrence, Scott Perkin, and Claire Schofield. 1992. "Can Conservation and Development be Coupled Among Pastoral People?" *Human Organization* 51, no. 4.

McNeely, Jeffery A., J. Harrison, and P. Dingwall, eds. 1994. *Protecting Nature: Regional Reviews of Protected Areas.* IUCN.

Neumann, Roderick. 1995. "Ways of Seeing Africa." *Ecumene* 2, no. 2, 149–69.

Peluso, Nancy Lee. 1993. Coercing Conservation: The Politics of State Resource Control. *Global Environmental Change* (June): 199–218.

Pretty, Jules N., and Michel P. Pimbert. 1995. "Beyond Conservation Ideology and the Wilderness Myth." *Natural Resources Forum* 19, no. 1, 5–14.

Stycos, J. Mayone, and Isis Duarte. 1995. "Parks, Resettlement, and Population: A Case Study in the Dominican Republic." *Society and Natural Resources* 8, 243–60.

Vandergeest, Peter. 1996. "Property Rights in Protected Areas: Obstacles to Community Involvement as a Solution in Thailand." *Environmental Conservation* 23, no. 3, 259–68.

Vandergeest, Peter, and E. Melanie Dupuis. 1996. "Introduction." In *Creating the Countryside,* edited by E. Melanie Dupuis and Peter Vandergeest, 1–25. Philadelphia: Temple University Press.

Watershed. 1996. Vol. 1, no. 2.

West, Patrick C., and Steven R. Brechin. 1991. *Resident Peoples and National Parks.* Tuscon: The University of Arizona Press.

World Conservation Monitoring Centre. 1997. "Statistics of Protected Areas Worldwide. http://www.wcmc.org.uk/protected_areas/data/summstat.html □

How to Make Them Hear: Challenging Transnational Oil Interests in Ecuador's Amazon Region

Malcolm Rogge

Abstract

This article discusses how oil development in the Amazon basin of Ecuador threatens to displace indigenous peoples through environmental contamination and colonization. It presents approaches to capacity-building for indigenous and mestizo-settler communities to deal with threats to human rights and the environment due to oil development. While the focus is on transnational oil operations in the Ecuadorian Oriente, many of the issues and empowerment methods discussed here are transferable to other local/global conflicts around the world, especially where indigenous and peasant communities are adversely affected by transnational resource extraction activities (mining, forestry, and oil).

Précis

Le présent article montre en quoi le développement pétrolier du bassin de l'Amazone équatorienne menace d'entraîner le déplacement des populations indigènes de par la contamination et la colonisation. On présente les différentes approches de la mise en place d'une capacité de résistance, chez les communautés indigènes et de colons mestizo, leur permettant de faire face à la menace dont les droits humains et les conditions environnementales font l'objet à cause du développement pétrolier. Le point de mire de l'argumentation concerne ici les opérations pétrolières transnationales dans l'Oriente équatorien. Cependant un bon nombre des questions et des procédures d'appropriation de pouvoir discutées ici sont applicables à d'autres conflits globaux et/ou locaux ailleurs au monde, surtout là où des communautés indigènes et paysannes sont affectées négativement par des activités transnationales d'extraction de matières premières (mines, forêts, pétrole).

Malcolm Rogge is Graduate Student, combined program MES and LLB, York University, Toronto.

Introduction

One of the many adverse social impacts of oil development in the Andean-Amazon countries is the internal displacement of indigenous peoples from their traditional territories. In the Ecuadorian Amazon region known as the "Oriente," 23 years of oil development has resulted in the gradual dispersion and displacement of several groups of indigenous peoples. Many of the ancestral indigenous territories in the region have, quite literally, become oil fields. The social and economic impact of oil development and colonization on indigenous peoples and their displacement have been well-documented by various human rights and environmental organizations (CESR 1994; Grylls 1992; Kimmerling 1991). The purpose of this article is not to recite the litany about how oil operations can adversely affect the lives of local people. Rather, I hope to contribute to the development of a constructive approach to assisting local communities in defending their environmental human rights.

The link between human rights and environmental issues is abundantly clear to indigenous peoples and mestizo settlers living in the Oriente. Basic social and economic rights have been eroded due to environmental contamination resulting from the widespread use of substandard and ultra-hazardous oil extraction technologies. Throughout the Oriente, indigenous leaders, local organizers, human rights activists, and environmental activists acknowledge the need for local-level *capacitación*, or "capacity-building." For many community leaders and activists capacity-building is viewed as the remedy for local people who have been, or are threatened to be, left in the wake of the ever-expanding oil industry. In this article, I outline some issues and approaches to *human rights and environmental capacity-building* for indigenous and mestizo settler communities adversely affected by oil development. While the focus is on transnational oil operations in the Oriente, many of the issues and methods discussed here are transferable to other local/global conflicts around the world, especially where indigenous and peasant communities are adversely affected by transnational resource extraction activities (mining, forestry, and oil).

Indigenous Peoples and Oil Development in the Oriente

Approximately 198,000 indigenous people live in the Oriente, comprising eight distinct nationalities: the Secoya, Siona, Cofan, Huaorani, Shuar-Achuar, Quichua, Shiwiar, and Zaparos. Oil development has dramatically impacted the lives of all of these groups. As oil operations expanded, previously inaccessible areas of the Oriente became open for settlement. Large-scale migration of mestizo settlers occurred during the oil boom of the 1970s, when over 250,000 poor farmers from the more densely populated coastal and Sierra regions moved to the Oriente. Repeating a pattern of events that has occurred throughout the Amazon basin, poor mestizo settlers cut down forests to establish cattle-ranches. In 1982, the annual population growth rate for the Oriente was 4.9 percent; and in areas where oil production was more concentrated the growth rate reached 8 percent (Grylls 1992, 12). These areas are characterized by extreme poverty and low levels of human development (Larrea 1992, 1–15). Needless to say, the rapid influx of mestizo settlers had a detrimental im-

pact on the lives of indigenous people, and thousands of indigenous peoples were dispersed from their ancestral territories. Ironically, even mestizo settlers, who were originally encouraged to migrate from the coast to the oil producing areas, have seen their social and economic conditions deteriorate because of oil contamination.

Since petroleum operations began in the Oriente, the Secoya and Siona nations have been dispersed by outmigration and assimilation—only about 500 Secoya and Sionas remain in their traditional territories. About 15,000 Cofan once lived in the Oriente, but after twenty years of the petroleum operations in their territory, only a few hundred Cofan retain their traditions and languages. Today, the Huaorani people number approximately 1500, though at one time, tens of thousands of Huaorani inhabited the region (Grylls 1992, 40). The dispersion of these peoples almost certainly means the extinction of their cultures, languages, and the loss of their orally transmitted knowledge-base.

The adverse social impact of oil operations on indigenous peoples is viewed by many Ecuadorians as an unfortunate, but unavoidable cost of economic development. Indigenous and settler communities are up against an industrial oligarchy that clearly supports an urban-biased, export-oriented development paradigm. For almost thirty years, oil development has been a national economic priority. Most of the oil produced is exported because the government desperately needs foreign currency to service massive debts. The maintenance and expansion of oil-related infrastructure is supported by loans from the multilateral lending agencies, and through bilateral aid programs (including oil-industry aid from Canada). Subsurface mineral rights are held by the State. The adverse social and environmental costs of the surface activities related to oil development are largely invisible to the distant urban beneficiaries of industrial development. The needs and interests of local groups, especially indigenous peoples, are virtually ignored in all stages of the planning and implementation of oil development activity.

From 1964 to 1989, petroleum activity in Ecuador was centered primarily in the northeast Oriente and was undertaken exclusively by the Texpet consortium (Texaco and Petroecuador). Beginning in 1989, the Ecuadorian government opened much of the remaining Oriente to the world's oil companies. Dozens of transnational oil companies moved into concession blocks that used to be remote areas populated almost exclusively by indigenous peoples. The borders of these concession areas have no correspondence to the social and political reality of the indigenous peoples who live there. For instance, in August 1991, Occidental Corporation won a twenty-year concessionary interest in a 200,000 hectare area called "Block 15"—an area that extends arbitrarily across parts of the traditional and legally recognized territory of the Secoya and Siona. Occidental estimates petroleum reserves within Block 15 at approximately 225 million barrels, which is enough to supply the U.S. domestic demand for a fairly significant period of time: 12.7 days. In July 1996, Occidental offered the Siona and Secoya peoples in Block 15 little more than medicine chests and water pumps in exchange for undefined access to the oil and gas reserves below the ground. An "agreement" was reached between company officials and four Siona-Secoya leaders, but it was later repudiated by the Siona-Secoya on the grounds of unconscionability, duress, and misrepresentation.[1]

The Siona and Secoya are dependent for their subsistence on hunting, fishing, the management of forest products, and agriculture. The environmental impact of the surface oil and gas activity will very likely result in the gradual erosion of their subsistence economy. In a few years time, the Siona and Secoya may be forced to leave their traditional lands in search of employment or other means of satisfying their basic needs. Such a forced migration and dispersion will almost certainly result in the extinction of the Siona-Secoya as a distinct people.[2]

Recent attempts at land reform have not succeeded in helping resolve land use disputes over indigenous territory; rather, the existing land reform mechanisms further entrench in law the State's oil and mineral development priorities. After national indigenous uprisings in the early 1990s, the Ecuadorian government granted ancestral land titles to many indigenous groups in the Oriente and elsewhere in Ecuador. However, these land titles do not adequately protect indigenous communities from oil activity, as they expressly prohibit local people from "impeding" or "obstructing" oil and mining operations.

The Challenge to Local Communities

Local indigenous and mestizo settler organizations are at an extreme political, legal, and institutional disadvantage as compared to the global interests that move quickly into their communities. Prior to the commencement of Texpet's operations in the 1960s, Amazonian indigenous communities and their representative organizations did not have to deal with transnational oil corporations as part of their daily reality. Today, both indigenous and settler organizations must react continuously to the activities of the ever-increasing number of transnational petroleum operators in the Oriente region. Leaders face rapid changes in their "external relations," and must respond to new and conflicting demands from the people they represent. They suddenly find that they need to travel to distant towns and even cities to seek advice about issues related to oil development.

While the TNC's operate swiftly under the direction of a vertically organized international hierarchy, local communities are often thrown into a chaotic disarray, particularly when different members of the community jockey for their individual interests. At the village level, decision-making can be very time-consuming and ineffectual as short-term interests are often

widely divergent. Unity of voice at the local level can be very difficult to achieve in the short term—this creates a strategic window of opportunity for resource extraction companies which can move swiftly and which are governed by very narrow interests. The TNC's are able to take advantage of the confusion at the community level by consolidating operations before local communities can organize an effective opposition.

One of the main reasons transnational oil companies can pursue "accelerated development" in countries like Ecuador is because local communities have little or no access to political or legal representation. It is hardly an exaggeration to state that where local populations do not have political power, adequate legal protection of their lands, or cannot access legal services, oil companies are free to operate much as though the areas were uninhabited. Where the members of local organizations do not have the practical skills or resources needed for effective participation in environmental planning and management, oil companies are spared the "costs" of local-level democracy. Human rights and environmental capacity-building in the Oriente is aimed at raising the "reduced overhead and operating costs" that are associated with extracting oil where people have little or no access to legal services, the political process, or the resources needed to challenge the oil agenda.

Methods and Approaches to Human-Rights and Environmental Capacity-building

Capacity-building on environmental human rights aims to equalize, through the transfer of knowledge and skills, the power-imbalance of local communities and global oil interests; it is the name given a process that involves local people developing the skills they require to defend their rights and long-term interests as peoples and communities. Capacity-building contributes to the development of the organizational, political, technical, and legal skills that local communities and their leaders require to influence oil companies, governments, and other oil-related stakeholders. Non-governmental organizations, such as indigenous organizations, environmental organizations, and human rights groups, are currently involved in assisting local Ecuadorian communities develop the necessary skills to defend their legitimate rights and interests.

One of the challenges of capacity-building in the areas of human rights and the environment is to communicate legal and technical issues in a such way that local people are empowered and not further alienated. Much work needs to be done to develop techniques for popular legal and human-rights education focusing on environmental justice issues. One obvious approach to is to work directly with local people to determine the consequences in daily-life of environmental degradation caused by oil operations. In this approach, local people are asked to consider, in practical terms, how they will meet basic needs if oil contamination has an effect on local subsistence activity. In answering this question, communities must consider in concrete terms how oil operations will affect their livelihoods. At the same time, in abstract terms, the communities contemplate how oil operations have the potential to violate their social and economic rights.

Popular human rights and environmental facilitators should be committed to understanding how local people manage the resources they depend upon to meet basic needs. Facilitators must understand and respect the local knowledge systems and local resource management practices. To communicate effectively about legal and human rights with indigenous and settler communities, facilitators should be able to integrate discussions of shelter, food, nutrition, water management, waste-management, agriculture and hunting, health, knowledge and uses of plants and trees, and other local resource management practices into their discussions about the legal and human rights aspects of oil operations. The daily satisfaction of basic needs is the concrete problem to which abstract legal and rights discourse can be applied. In using examples from the immediate experiences of the people he or she is working with, the facilitator is able to construct a culturally relevant interpretation of human and legal rights.

One approach for a facilitator is to work with community members to systematically consider risks to the community when resources are destroyed through the contamination of soil, drinking water and rivers, and noise contamination. For example, communities that are dependent on their forest for key building materials—such as hard-woods used for specific construction purposes—should consider how they will build their homes if they are forced to leave the forest, or if important natural construction materials are destroyed because of deforestation.

Capacity-building Workshops on Human Rights and the Environment

I have outlined below the main theme areas that may be covered in capacity-building workshops of this nature. The list is not inclusive, nor does it indicate a sequence that should be followed, but is meant to suggest the range and content of capacity-building activities as they relate to oil development.

Who are the stakeholders?—the various political, corporate, and community interests in oil operations (stakeholders may include: women, elders, youth, men, other indigenous groups, oil companies, oil company employees, the government, international organizations, environmental organizations, etc.).

How to influence stakeholders?—the different approaches required when communicating with different stakeholders, for example, how other indigenous communities should be approached differently than oil company officials, or the government.

The political economy of oil—the political and economic forces that drive oil production in Ecuador in general, and in the specific communities adversely affected by oil operations; the relationship between Ecuador's external debt and oil export; the history of oil activity in the region.

Car-culture and energy consumption in the North—energy-use and consumption of resources in the industrialized countries.

Why do transnational oil companies come to Ecuadorian Amazonia?—transnational corporations and how they benefit from operating in Ecuadorian Amazonia.

Company-specific information—information about the company operating in the participants' community, including how to contact company officials in Ecuador and at the company headquarters; the different standards that transnational oil companies must abide by in different countries.

Finding the information needed to make decisions—the practical tasks in finding information; accessing information from the government or the company; difficulties.

What are property titles?—property rights and land titles.

Workers' rights and workplace health and safety—intended for communities which expect that the oil companies will provide jobs.

Environmental law in Ecuador—what environmental laws are for, how they are enforced, and the international environmental laws that the Ecuadorian government must respect.

The right to organize and inform the community—the right to gather information and the right to freedom of association.

Human rights—human rights monitoring; how to use human rights discourse as part of an overall strategy to put pressure on the government or the company.

Responsibilities and obligations of oil companies—overview of the major responsibilities of corporations with respect to environmental and social issues.

Administrative, criminal, and international procedures for making claims against oil companies—the use and limitations of the legal system to defend the legal rights of communities and individuals.

How to organize an environmental monitoring committee—dedicated to monitoring the effects of oil activity in the area.

Environmental and social impact of oil activity—the potential environmental and social impacts of oil operations, including: the introduction of diseases, community chaos and division, subversion of leaders, changes in traditional diet, foods, loss of language, loss of territories, loss of traditional knowledge, sudden immersion in a foreign economic system, extinction of species, etc.

Alternative development strategies—other possibilities for local economic development, e.g. ecotourism; how to use alternative development plans as leverage in discussions with company and government officials.

Map-reading and counter-mapping—basic familiarity with map-reading; community counter-mapping by making their own maps of their settlements and traditional lands; can be used to show company and government officials how local communities use and depend on the natural resources around them.

Negotiations—what negotiations are for, how to conduct one, and how to know when a "negotiation" has already happened.

Models of agreements between communities and oil companies—analyze and critique agreements already reached in other communities.

Organizing workshops and discussions in your own community—how to continue the capacity-building process independently.

Company strategies in business and negotiation—company-community-relations strategies; strategies of economic coercion.

Forging alliances with other organizations and communities—ideas and plans.

The Need for Human-Rights and Environmental Capacity-building in Relation to Oil Production

A great need for oil-development-related human rights and environmental capacity-building already exists in the Oriente; this need will intensify as oil operations expand in Ecuador. Moreover, capacity-building activities will be needed in Peru, Columbia, and Bolivia as oil activity expands throughout the western Amazon region. Every major oil company in the world is operating in Latin America: Shell and Mobil operate in Peru (in concession areas covering over 2 million hectares); British Petroleum operates in Colombia; Occidental operates in Ecuador and Peru. There are also dozens of "fly-by-night" operations working throughout Latin America. The various transnational interests compete for concession areas located in often very remote parts of the continent—areas where indigenous people have had little contact with outsiders. The hope is that through local human-rights and environmental capacity-building, transnational oil companies will feel more pressured to respect the environmental and social rights of the local people.

At the local level, human-rights and environmental capacity-building activities are aimed at providing training to local organizations that have expressed a need for advice on how to communicate with government officials, the media, and company officials. When local communities are aware of their rights in Ecuadorian law and their human rights in international law, they are able to more clearly articulate demands to their governments and the oil companies.

Local indigenous and mestizo settler organizations in the Oriente consistently speak of the need for capacity-building. They recognize, in no uncertain terms, the need to become more proficient in the legal and technical discourses that the oil companies and national government engage in.

Capacity-building requires the cooperation of indigenous leaders, communities, NGO's, settler organizations, environmentalists, and human-rights workers. The aim of their activities must be to improve the capacity of local indigenous and settler organizations to influence government development policy, legislation, and resource management practices. This is necessary in order to protect lands, farms, resources, cultures, and means to satisfy basic needs. Future study might demonstrate the extent of population displacement due to oil operations over the long term and the contribution of local human-rights and environmental capacity-building to an overall reduction in such displacement. ■

Notes

1. My own research, Quito, June 1996.
2. Personal communication with Humberto Piyajvaje, President, OISE, San Pablo, Ecuador, August 2, 1996.

References

Benjamin, C. S., and T. Turner. 1993. "Playing Out a Full Hand: Indigenous Peoples' Movements and the Vulnerability of Transnational Energy Corporations." International Seminar on Indigenous People, Kuala Lumpur.

Bryant, R. 1992. "Political Ecology: An Emerging Research Agenda in Third World Studies." *Political Geography* 11, no. 1, 13–14.

Centre for Economic and Social Rights (CESR). 1992. *Rights Violations in Ecuadorian Amazonía*. New York: CESR.

Freire, P. 1994. *Pedagogy of the Oppressed*. New York: Continuum.

Freire, P., and Ira Shor. 1987. *A Pedagogy For Liberation*. New York: Bergin & Garvey.

Granda, A., and Natalie Pierce. 1995. *Los Derechos de Las Poblaciones Amazónicas Frente a La Actividad Petrolera: Guía para la Acción*. Quito: Acción Ecológica.

Grylls, C. 1992. *Environmental Hooliganism in Ecuador*. Oslo: Framtinden I Våre Hender.

Kimmerling, J. 1991. *Amazon Crude*. New York: National Resource Defence Council.

Larrea, C. 1992. "The Mirage of Oil Development: Oil, Employment, and Poverty in Ecuador (1972–1990)." PhD thesis, York University, Toronto.

Schuler, M., and Sakuntala Kadirgamar-Rajasingham. 1992. *Legal Literacy: A Tool for Women's Empowerment*. New York: UNIFEM.

Toshiyuko Drury, R., and Flora Chu. 1994. "From White Knight Lawyers to Community Organizing." *Race, Poverty and the Environment* (Fall 1994/Winter 1995). □

The Ethics of Development-induced Displacement

Peter Penz

Abstract

This concluding piece on the ethics of development-induced displacement notes how all of the preceding articles find the displacement of people by development policies and projects morally objectionable and that it should be prevented. The question of why it is morally objectionable, how states attempt to justify it nevertheless, and how acceptable such justifications are, is addressed in some detail. This is a discussion that falls into the terrain of the new field of development ethics. Development's promise to reduce poverty and inequality have been used to justify large projects and disruptive policies. In assessing these justifications, three lines of ethical argument are explored, one in terms of the public interest, a second in terms of self-determination, and third in terms of distributive justice. The conclusion is that, while forced migration cannot be categorically declared unjustifiable, the conditions that must be met for its justifiability are considerable.

Précis

Ce texte conclusif sur l'éthique du déplacement de populations du au développement fait d'abord observer combien toutes les contributions du présent numéro considèrent que le déplacement de populations causé par des politiques de développement est moralement condamnable et se doit d'être évité. La question du pourquoi de ce caractère moralement condamnable, la description des tentatives des gouvernements pour le justifier malgré tout, et la question du degré d'acceptabilité de telles justifications sont abordés ici en détails. La présente discussion s'inscrit dans le domaine nouveau de l'Éthique du Développement. La promesse que fait le développement de réduire la pauvreté et les inégalités a été utilisée pour légitimer des projets pharaoniques et des politiques déstabilisatrices. En évaluant de telles procédures de justification, on exploite ici trois types d'arguments éthiques. Le premier se formule en termes d'intérêt public, le second en termes d'auto-détermination, le troisième en termes de justice distributive. La conclusion est que la migration forcée ne peut être déclarée injustifiable de façon absolument catégorique, mais que les conditions devant être rencontrées pour que sa légitimité se fasse jour sont d'une complexité considérable.

Peter Penz is Associate Professor, Faculty of Environmental Studies, York University, Toronto.

Displacement and Development Ethics

The implication of the preceding articles is that the displacement of people by development policies and projects is morally objectionable and that it should be prevented. In this short article I will address the question of why it is morally objectionable, how states attempt to justify it nevertheless, and how acceptable such justifications are. It falls into the terrain of the new field of development ethics.[1]

But first a prior question: why engage in complex ethical analysis of an issue such as development-induced displacement in the first place? This question arises from two diametrically opposed orientations. One argues that economic advancement has always meant that the landscape of production and distribution is changed and people are often forced to move as a result. It is claimed that people need to learn to adjust (and, perhaps, that they be helped to adjust). Displacement has been ubiquitous in industrial development, whether capitalist or socialist. In fact, it reflects mobility and as such is the opposite to immobility, being trapped in a particular place. Mobility is desirable, immobility is not. The former indicates freedom, the latter its lack. In any case, as long as development serves the public interest, there is no larger ethical issue involved. This position represents a form of developmentalism that is morally simplistic in that it treats only the ends of development as involving moral judgments, but not the means. It will be addressed further under the public-interest argument below. The other orientation that would short-circuit an ethical analysis is the opposite to the first. It is no less simplistic morally. According to this perspective, displacement is ethically unacceptable, pure and simple, and so are any development projects and policies that lead to it. But this line of argument second ignores the justifications that can and have been offered for development-induced displacement. Simplistic moralism, whether pro- or anti-development, is objectionable. Both the means of development and their justifications require ethical scrutiny.

Displacement as Evil

The initial moral significance of displacement resides in its very definition. To displace people means to force them to leave their home, village, town, region or country. To the extent that coercion is morally objectionable, displacement is too. Moreover, displacing people usually involves harming them. They lose their land, their livelihoods, their social networks and the cultural patterns contained in them, the environment for which they have accumulated experience and knowledge and to which they are attached, to mention just the most basic losses. Thus, apart from the moral objection to coercion, there is the further objection to harming people in ways other than contravening their wishes and commitments. Whether various kinds of compensation (including assistance with becoming reestablished

in a suitable alternative location) can offset the harm then becomes a crucial question.

Migration forced by development places responsibility on the shoulders of those taking the development initiatives. If development is an unguided process, one driven by a national or global system that is beyond the control of any identifiable human agency, then of course there is no such responsibility. However, choices with respect to development are made. The economy is not an impersonal machine. While there may be structural constraints on decision-makers, they still have choices such as whether to protect the land rights of forest-dwellers in the face of logging interests or whether to support a system of many small dams that have limited displacement as opposed to one of a few big dams with extensive displacement.

Given that there is moral responsibility for development decisions with displacement effects, this in itself does not mean that development choices that dislocate people are necessarily immoral. Even if it is recognized that displacement is bad because it involves harm or coercion, it is possible that it is a justifiable evil when considered within the larger picture. In particular, the question arises of whether the good that development does can morally outweigh its bad consequences, including uprooting people.

My brief exploration of this question will involve three stages. I will consider, in turn, arguments in terms of the public interest, liberty, property rights, and community autonomy, and equal sharing.[2] My conclusion will be that, while not all displacement due to development can be ruled out as morally unjustifiable, such justification and the social provisions that satisfy it have to go beyond the public interest and compensation for losses.

The Public Interest

Much economic development is justified in terms of the public interest. From this public-interest perspective, as long as the overall well-being of people is increased, even development projects that have the unfortunate effect of uprooting some people should be pursued (unless there are alternative projects that would provide even higher net benefits, in which case these should be adopted instead). This moral stance is in fact operationalized in cost-benefit analysis, which is the standard method of evaluating development projects. To be satisfactory on its own terms, this approach must include displacement effects as costs. These include the loss of land, homes, fields, and transportation and other infrastructure that may be involved, the disruption of livelihoods and communities, the separation from culturally significant places, and the cost for people to reestablish themselves elsewhere. Cost-benefit analysis is supposed to convert all this into a single dimension of commensurability, specifically money. Theoretically, this is to be done by people's individual valuation in money terms. Thus the losses involved in leaving a community are to be evaluated by determining what individuals would need in terms of compensation in order to accept leaving the community. Of course, implicit in this assessment are the alternatives available to them. The thrust of this approach is that all costs and benefits are to be taken into account in determining the overall net benefits of a project or policy. It will be in the public interest if it generates net benefits and if there is no alternative option with higher net benefits.[3]

There are several problems with this approach:

(a) The concept of the public interest may be employed to subordinate the interests of people to some alleged larger good, such as the interests of the state, or to subordinate people's own notions of their interests to some attributed ideal notion.

(b) Even when the public interest is conceived as the aggregate of the interests of the people as individuals, it is prone to being subverted by the actual practice of development.

(c) Most crucial for this discussion is that the idea of the public interest neglects distributive considerations.

(a) The notion of the public interest lends itself to very different interpretations. Some conceptions subordinate the interests of people to some larger good. Instead of consisting of the aggregate of interests of the population, the public interest may be deemed to be the well-being of some overarching entity. For example, the unity and security of the state may be treated as the most basic aim. Thus, in Indonesia and Bangladesh tribal peoples in frontier areas (e.g., Western New Guinea and the Chittagong Hill Tracts, respectively) have been viewed with suspicion and development has been brought to these areas partly as a way of settling loyal populations from the national heartland there. This led to extensive suffering as well as conflict. Especially as customary land occupancy often lacked legal backing, conflicts over land led to violent confrontation and large-scale displacement due to development-induced conflict, with subsequent large-scale deaths and refugee flows (Penz 1993). Even if the public interest consists of the interests of people, it may be conceived without reference to their own notion of what is in their best interest. The public interest may be regarded as the "development" of people in a particular direction, such as becoming "civilized". Thus, even post-colonial states have pursued the development of marginal groups out of their "backwardness" as something desirable in itself (Bodley 1990, ch. 8). Such moral paternalism smacks of old-style colonialism and is objectionable in that it denies moral agency to such marginal groups.

(b) Even when the public interest is clearly recognized as consisting of the interests of people, much development violates it in practice. The politics of development are crucial here. Development is often little more than a struggle between various sections of the national elite over economic opportunities. In some cases there is not so much an extractive struggle as a systematically organized regime of ex-

ploitation; thus Philip Howard referred in his article to a kleptocratic regime (rule by thieves) in Haiti under the Duvaliers. In either case, what is involved is the self-interested use of power. A dam, an irrigation project or a tree plantation may not serve the public interest at all, regardless of how the public interest may be conceptualized, but merely sectional interests. Or it is chosen because it contributes to state revenues rather than in accordance with any reasonably comprehensive conception of the public interest. Even if there is a commitment to a public interest approach, development politics mean that certain interests have greater political recognition than others. Forest-dwellers and other marginal groups are likely to be rather invisible politically and to have their interests ignored in any public-interest assessment. Moreover, even in a systematic cost-benefit analysis, some things are difficult to quantify, and such difficulties are liable to lead to their neglect. Anything not somehow obtained, with reasonable ease, from market prices, which the theory takes to reflect individual valuations, involves such difficulties. For that reason, social, cultural and environmental losses are prone to neglect. In general, to claim that all development serves the public interest would be a heroic assumption, to say the least.

(c) Most striking is the neglect of distributive considerations in a pure public-interest perspective. It is only overall net benefits that determine the public interest, not how these are distributed. It is thus possible to approve of a project in the name of the public interest, even though many people are harmed, as long as this harm is outweighed by the gains to the country. Yet it stands in violation of any reasonable notion of social justice. One position is that all those affected should not only have all their losses assessed, as part of a public-interest calculation of aggregate net benefits, but should be compensated for them, so that they are not harmed by the development action. The entitlement to compensation and, more fundamentally, the entitlement to consent to development impacts, including displacement, and to refuse such consent is the focus of the next perspective.

Freedom, Property, and Self-Determination

According to the libertarian perspective, what makes displacement objectionable is the violation of freedom that is involved. Freedom and the right to property without interference that goes with it are the central values of this perspective. The legitimate basis of change is exchange, so that the only moral way that a dam can be built for a reservoir in a populated valley is to have the valley inhabitants accept offers of remuneration or other forms of compensation (e.g., land or employment elsewhere). No one can be forced out without violating the central moral principle of liberty.

Although libertarianism articulates the principle of liberty strictly in reference to individuals, a communal or "communitarian" version of it is possible as well. In this case, it is communities that have the fundamental right to be self-determining and to be free from coercion from the outside. While within communities public-interest actions may be taken, the public-interest morality does not apply to relations with other communities, the country or the world as a whole. (Part of the rationale for this position may be that only communities are sources of values and thus cannot be subordinated to any supervening value system.)

Whether in relation to individuals or to communities, particular violations of self-determination can be justified only if it is to prevent other, more serious violations, such as by an invading outside force. In general, it means that displacement as forced migration is immoral; only negotiated voluntary migration is justifiable.

This position, especially in its communal form, has much to be said for it. In practical terms, it means that development projects have to be negotiated with the affected communities. In fact, development becomes much more community-governed under this self-determination perspective. The latter requires a fundamental reorientation from the current top-down and business-privileging approach to development.

Nevertheless, this position is problematic. Persuasive critiques come both from the public-interest perspective and from the equal-sharing perspective that we still have to consider. From the public-interest perspective, the first point to be made is that the conception of self-determination or liberty employed is a particular and very limited one. Specifically, it is a negative conception in that it is concerned with freedom from interference by others, rather than the freedom and capacity to choose and pursue certain options. The latter is a positive conception of self-determination or liberty. This raises public-interest considerations in that the lack of development can be seen to constitute a lack of positive self-determination. Individuals and communities cannot do certain things because of their poverty, limited resources or restricted technologies or skills. Thus, building dams to irrigate fields and provide electricity to villages and rural industries may enhance self-determination in improving the range of options available to people and communities. In that case, the negative self-determination not to be displaced may stand in tension with the positive self-determination of expanding the range of activities that become possible. This then becomes a similar trade-off as that involved in cost-benefit analysis.

A second criticism of the self-determination perspective that comes from the public-interest perspective is a very practical one. Individuals (and even communities) may refuse to accept even a very generous offer to move, not because it would not make them better off than before, but simply because, by holding out for extravagant compensation, they can enrich themselves at the expense of the project funders, which may be taxpayers. This presumably is a major reason for the power of eminent domain that states tend to retain for themselves. To

be fair, such coercive authority needs to be coupled with fair compensation, but the compensation may need to be determined by an independent adjudicator rather than the person or family, because of this opportunity for exploitation of public-interest projects.

From an equal-sharing perspective, the problem is that the very strong protection that libertarianism and analogous communitarianism accord to individuals and communities, respectively, also serves the privileged. With such protection, land redistribution from the big landowners to land tenants or labourers would not be possible.[4] More specifically regarding displacement, self-determination as such has nothing to say about how the benefits from development projects should be shared. One plausible position is to say that those evicted should not only be fully compensated, but that they should receive a generous share of the development benefits of the project for which they had to make way. But such considerations of distributive justice lead us into the next perspective.

Inequalities and Justice

An equal-sharing perspective broadens the question from simply the treatment of those displaced or otherwise harmed to the overall effects, in a manner similar to that of the public-interest perspective. However, instead of focusing on the total of net benefits, the focus is on the distribution of costs and benefits. In fact, it broadens it even further because the pre-existing inequalities are brought into the picture.

An equal-sharing orientation can have different sources in ethical theories. One is that equal sharing is the fundamental moral default option. Since everyone is entitled to equal consideration, the burden of proof falls on those who want to argue for a distributive solution other than equality. Two arguments that are widely offered are those of incentives and those of property rights. The incentives argument is a kind of public-interest argument in that individuals are to be rewarded for contributing to the public interest. But it raises questions of what constitutes the public interest as well as distributive justice within this public interest. In other words, distributive justice enters into the justification of incentives. One kind of incentive argument (which comes from John Rawls's [1971] contractarianism) is that incentives should be structured so as to improve the living conditions of the most disadvantaged. Inequalities in that case are justified only by benefiting the poor, e.g. by offering health workers higher rewards for locating in rural communities or by rewarding engineers that develop low-technology innovations. It is a justification of inequalities, but a very constrained one. In general, it works in the direction of reducing inequalities, including by providing incentives to those assisting the poor to improve their conditions.

The other argument against equality is that of the priority of property rights. While the existence of property rights makes life predictable in an important way, creates a sphere of self-determination and also constitutes an incentive to productivity, they cannot be treated as morally absolute. Much property has been inherited, raising questions of moral entitlement to inheritance as well as questions about the legitimate holding of the property by ancestors. In fact, the pervasiveness of injustice in the historical acquisition and transfer of property (with little land, for example, being free from conquest, force and fraud at some point in the historical chain of transfers) makes property rights at most a morally contingent right. To the extent that inherited inequalities undermine equality of opportunity, their moral basis is very much in doubt.

If ethical development is to serve not only the public interest, but also distributive justice in the form of equality of opportunity (in more than a superficial sense), then development-induced displacement must be considered in a broader context. If development initiatives serve to reduce inequalities, for example by providing electricity and irrigation to the poor and inundating the plantations and mansions of the rich, then displacement may not be unjust in the same way as it is when it displaces those who are already disadvantaged. There may be an important question of fairness among the rich (those affected and those not), i.e. "horizontal" as opposed to "vertical" equity, but, as long as this can be sorted out by appropriate transfers among the rich, distributive justice is served rather than violated. Displacement should still be minimized as a matter of the public interest or to minimize coercion or the required rectification of horizontal inequities, but it should not stop development that makes the distribution more just.

It becomes trickier when the beneficiaries are one group of disadvantaged, e.g. peasants, and the displaced are another group of disadvantaged, e.g. forest-dwellers. In that case, horizontal equity among the disadvantaged becomes crucial. It would certainly be unjust to benefit the peasants because they are part of mainstream society, while uprooting indigenous forest-dwellers who practice a tribal way of life. Not only does distributive justice require that anyone displaced is fully compensated, but that those displaced receive a fair share of the benefits of the development. This is an important point. Development projects that fully compensate those dislocated or otherwise harmed may still violate distributive justice if the benefits are unfairly distributed. It is true that particular development projects are designed to improve the conditions of particular groups so that it may be impossible for a particular project to meet this criterion; but the requirement of the just distribution of benefits can be applied to the overall pattern of development.

Indirect Displacement and Just Development

The discussion so far is most applicable to direct displacement resulting from development. It is then reasonably clear who the displacement victims are and who ought to receive compensation and share in the development benefits. In the case of indirect

displacement, there is no such clarity. When a poor peasant family sells its little plot of land and switches to making a living with insecure day-labour employment, it is not necessarily clear whether this was a result of deliberate development initiatives or a result of processes of economic change beyond the control of development authorities. In such cases, however, it is not inappropriate to treat development in general as a national project, which has its victims, and these victims are then entitled to compensation and a share in the development benefits. But compensation is difficult to determine in such cases and a share in the development benefits is a loose notion at best. What this point, and the preceding one concerning the difficulty of fairly distributing the benefits of particular projects, mean is that those who are left or made poor in the development process and thus prone to displacement are entitled to assistance. A bottom-up approach to development mentioned in the introductory overview to this edition of *Refuge* would in fact do this.

Conclusion

The self-determination perspective is important in requiring consultation with communities in the design of development projects that will impact them significantly. It requires that the communities' own conception of their interests and their management of their environment be respected. More specifically, it requires that forced migration be avoided and replaced by negotiated resettlement terms, wherever the need for population movements cannot be avoided. But self-determination cannot be asserted in such unqualified terms that development which serves both the public interest and distributive justice is blocked. There are conditions under which development-induced displacement can be justified. But these are strong conditions, including that coercive displacement is as much as possible avoided by negotiated resettlement, is quantitatively minimized, and is fully compensated. Full compensation means recognizing the full range of losses that those dislocated experience. Moreover, the justifying conditions include that the development benefits contribute to reducing poverty and inequality. These conditions have been massively violated not only in the particular displacement processes which have been described in this edition of Refuge, but typically also in the globally ubiquitous pattern of development-induced displacement. ■

Notes

1. This field is represented by the International Development Ethics Association. Inquiries concerning this organization can be directed to Prof. David A. Crocker, Institute for Philosophy and Public Policy, 3111 Van Munching Bldg., University of Maryland, College Park, MD 20742, USA.
   Email: dcrocker@puafmail.umd.edu
2. This classification is a slight elaboration of the very basic framework I employed in Penz 1997, which confined itself to the no-harm and equal-sharing perspectives in the treatment of international environmental justice. The one employed in this article roughly corresponds to three of the perspectives on social justice in standard classifications in political philosophy, namely utilitarianism, libertarianism and egalitarianism. Another perspective, that of contractarianism, is an amalgam of these three. Communitarianism can take a variety of forms; I will discuss one form in connection with libertarianism. For such classifications and explanations of the perspectives contained in them see e.g. Smith 1984, chapters 4 and 5; and Sterba 1992. For a more elaborate classification specifically of perspectives in development ethics, see Penz 1991.
3. There is a problem in cost-benefit analysis in that valuations by individuals are determined by their wealth levels, but this is more of a distributive issue of concern to the equal-sharing perspective introduced below than to the public-interest perspective. For a fuller discussion of cost-benefit analysis from an ethical perspective, see e.g. Wenz 1988, chapter on cost-benefit analysis.
4. In Penz 1992, I argue for an equal-sharing perspective even with respect to the land of indigenous peoples, but introduce important caveats that normally rule out the redistribution of frontier land from tribal peoples to colonizing landless peasants.

References

Bodley, John H. 1990. *Victims of Progress.* 3d ed. Mountain View, CA: Mayfield Publishing.

Penz, Peter. 1991. "The priority of basic needs: toward a consensus in development ethics for political engagement." In *Ethical principle for Development: Needs, Capacities or Rights?* edited by K. Aman, 35–73. Upper Montclair, NJ: Institute for Critical Thinking, Montclair State College.

——. 1992. "Development Refugees and Distributive Justice: Indigenous Peoples, Land, and the Developmentalist State." *Public Affairs Quarterly* 6, no. 1, 105–31.

——. 1993. "Colonization of Tribal Lands in Bangladesh and Indonesia: State Rationales, Rights to Land, and Environmental Justice." In *Asia's Environmental Crisis,* edited by M. C. Howard, 37–72. Boulder, CO: Westview Press.

——. 1997. "International Environmental Justice: The Global Environment and Rich-Country Obligations." In *Canadian Issues In Environmental Ethics,* edited by A. Wellington, A. Greenbaum, and W. Cragg. Peterborough, ON: Broadview Press.

Rawls, John. 1971. *A Theory Of Justice.* London, UK: Oxford University Press.

Smith, David M. 1994. *Geography and Social Justice.* Oxford, UK: Blackwell.

Sterba, James P. 1992. *Justice: Alternative Political Perspectives.* 2d ed. Belmont, CA: Wadsworth Publishing.

Wenz, Peter S. 1988. *Environmental Justice.* Albany, NY: State University of New York Press. □

From Being Uprooted to Surviving:

Resettlement of Vietnamese-Chinese "Boat People" in Montreal, 1980–1990

By Lawrence Lam

Toronto: York Lanes Press
ISBN 1–55014–296–8
200 pages, indexed; $18.95

The saga of the "boat people" is a dramatic story, a story of one of the largest refugee movements in recent years. Canada played a significant role in the resettlement of these refugees in bringing them to Canada where they could start anew. *From Being Uprooted to Surviving* by Professor Lam, is based on ethnographic data of a sample of Vietnamese-Chinese accepted for resettlement in Montreal in 1979 and 1980, who were interviewed again in 1984–85 and in 1990–91, this book provides a longitudinal account of their experience of resettlement in Canada. This experience has been marked by successive stages of their struggle to overcome structural barriers and to negotiate a meaningful niche in Canada.

Contents: Preface, The Boat People Phenomenon, Resettlement—Issues and Perspectives, The Vietnamese-Chinese Refugees, Exodus and Transition, Resettlement Process—The First Three Years, Resettlement—Beyond the First Three Years, Conclusion.

Available from:

Centre for Refugee Studies
York University
Suite 333, York Lanes
4700 Keele Street
North York ON M3J 1P3

Back Issues of *Refuge*

The following is a list of general and thematic issues of ***Refuge*—Canada's periodical on refugees.**

1. **Environmental Refugees**, Vol. 12, No. 1, June 1992.
2. **Discussion of Immigration Bill C–86**, Vol. 12, No. 2, July/(Aug.) 1992.
3. **General Issue/Refugee Sponsorship**, Vol. 12, No. 3, Sept. 1992.
4. **Eastern European Refugees**, Vol. 12, No. 4, Oct. 1992.
5. **The Tragedy of Somalia**, Vol. 12, No. 5, Nov./Dec. 1992.
6. **The Review of Rejected Refugee Claims in Canada**, Vol. 12, No. 6, Jan. 1993.
7. **Russia and Central Eurasia**, Vol. 12, No. 7, February 1993.
8. **Africa Issue: Repatriation**, Vol. 12, No. 8, March 1993.
9. **General Issue/Globalization**, Vol. 13, No. 1, April 1993.
10. **Russia and Central Eurasia**, Vol. 13, No. 2, May 1993.
11. **Special Issue on Sri Lanka**, Vol. 13, No. 3, June 1993.
12. **Gender Issues and Refugee Law**, Vol. 13, No. 4, July/Aug. 1993.
13. **Southeast Asian Refugees**, Vol. 13, No. 5, Sept. 1993.
14. **Mozambican Refugees**, Vol. 13, No. 6, October 1993.
15. **Russia and Central Eurasia**, Vol. 13, No. 7, Nov./Dec. 1993.
16. **General Issue/Sudan**, Vol. 13, No. 8, January 1994.
17. **Integration of Refugees—The Canadian Experience**, Vol. 13, No. 9, Feb. 1994.
18. **Refugees and Peace in Central America**, Vol. 13, No. 10, March 1994.
19. **Horn of Africa**, Vol. 14, No. 1, April 1994.
20. **The Russian Federation**, Vol. 14, No. 2, May 1994.
21. **The Former Yugoslavia**, Vol. 14, No. 3, June/July 1994.
22. **General Issue/IRB and *Rebuilding Trust*/Tamil Immigrants in Canada**, Vol. 14, No. 4, Aug./Sept. 1994.
23. **Rwandan Crisis**, Vol. 14, No. 5, October 1994.
24. **Refugee Resettlement in Israel**, Vol. 14, No. 6, Nov. 1994.
25. **Refugee Women—Part 1: Issues**, Vol. 14, No. 7, Dec. 1994.
26. **Refugee Women—Part 2: Case Studies**, Vol. 14, No. 8, Jan. 1995.
27. **The Safe Third Country Concept**, Vol. 14, No. 9, February 1995.
28. **Special Issue on Chechnya**, Vol. 14, No. 10, March 1995.
29. **Reformulation of International Refugee Law**, Vol. 15, No. 1, 1996.
30. **Environment, Development and Refugees**, Vol. 15, No. 2, 1996.
31. **International Intervention in Refugee Crises**, Vol. 15, No. 3, 1996.
32. **Early Warning on Humanitarian Crises**, Vol. 15, No. 4, 1996.
33. **Child Refugees**, Vol. 15, No. 5, 1996.
34. **Global Settlement Services**, Vol. 15, No. 6, 1997.
35. **Early Warning and Early Response**, Vol. 16, No. 1, May 1997.
36. **Uprooting and Consequences**, Vol. 16, No. 2, June 1997.

Single copy: Vol 12, 13 &14–$6.50; Vol 15–$10. 10 percent discount on 3–9 issues (copies); 20 percent discount on 10 issues (copies) or more. Special discounts are available for students and exclusively volunteer-run NGOs. P. O. accepted.

Please send your orders to:

Centre for Refugee Studies, York University
Suite 333, York Lanes, 4700 Keele Street
North York, Ontario, M3J 1P3, Canada
Fax: (416) 736–5837 • Email: refuge@yorku.ca

Refuge • Vol. 16 • No. 3 • August 1997

CANADA'S PERIODICAL ON REFUGEES
REFUGE

Refuge
Centre for Refugee Studies
Suite 322, York Lanes
York University
4700 Keele Street, North York
Ontario, Canada M3J 1P3
Phone: (416) 736–5663
Fax: (416) 736–5837
Email: refuge@yorku.ca

CALL FOR PAPERS

Refugee Identity in Resettlement Countries

The Centre for Refugee Studies will soon publish an issue of *Refuge* on "Refugee Identity in Resettlement Countries." The issue will address topics such as:

- Gender and refugee identity
- Processing refugees and identity
- Identity (re)formation among refugees
- Immigration and identity
- Civic identity and civic participation among refugees in resettlement countries

Contributions with abstracts are invited. They must be received not later than October 31, 1997.

Papers should be typed, double-spaced, and referenced in proper academic form. They should not exceed 16 pages or about 4000 words. Short papers of about 900 words are also welcomed. Word-processed submissions may be sent on disc or by email.

Les rédacteurs acceptent aussi des articles en français. Le style doit conformer aux normes exigés pour les articles rédigés en anglais.

Deadline: October 31, 1997.

For further detail, please contact:

Rob Kenedy
Guest Editor, *Refuge*
Centre for Refugee Studies, York University
Suite 322, York Lanes
North York, Ontario, Canada M3J 1P3
Fax: (416) 736–5837 • Tel.: (416) 736–5663
Email: rkenedy@yorku.ca