

0305-750X(94)E0014-O

## The Poor and the Environment: Friends or Foes?

## **ROBIN BROAD\***

The American University, Washington, DC

Summary. — The conventional literature in the environment and development field often presents a rather deterministic view of the relationship between poverty and the environment, revolving around the negative impact of the poor on the environment. Based on extensive fieldwork in rural communities across the Philippines, this article is a case study of that relationship between the poor and the environment in a country with severe poverty rates, significant environmental degradation, and a highly organized civil society. As a country where large numbers of poorer people have been transformed into environmental activists, the Philippines offers both a refutation of the traditional paradigm of poor people as environmental destroyers and enormous insights into the conditions under which poor people become environmental protectors. This case study leads the author to posit a set of conditions under which poor people become environmental activists rather than environmental degraders. Suggestions are made as to the relevance of the Philippine case study for understanding the relationship between the poor and the environment in other parts of the Third World.

## 1. THE TRADITIONAL ARGUMENT

The purpose of this article is to analyze the relationship between poor people and the environment based on extensive fieldwork in the Philippines, a country that makes for a rich case study, given its high poverty rates, fragile and degraded ecosystems, and highly politicized civil society.

In recent years, numerous studies have drawn attention to a relationship between poverty and the environment — in fact, the relationship is at the core of the modern field of environment and development. It is therefore prudent to begin by analyzing the prevailing presuppositions about the relationship, that is, the main assumptions about the poor and the environment found in the dominant paradigm within the field of environment and development. Three sets of assumed correlations can be uncovered and will be discussed in turn.

The World Commission on Environment and Development, chaired by Gro Harlem Brundtland, opened the door to the modern field of environment and development with the 1987 publication of *Our Common Future*. The Brundtland Report, as it is commonly called, delineated what we will term a first hypothesized equation about the relationship with its focus on poverty as "a major cause and effect of global environmental problems." The insertion of poverty as a variable was seen as an attempt to merge the "development" field with the "environment" field and therefore as an important break with past analysis, as the report explained:

Environmental stress has often been seen as the result of the growing demand on scarce resources and the pollution generated by the rising living standards of the relatively affluent. But poverty itself pollutes the environment, creating environmental stress in a different way. Those who are poor and hungry will often destroy their immediate environment in order to survive: They will cut down forests; their livestock will overgraze grasslands; they will overuse marginal land; and in growing numbers they will crowd into congested cities. The cumulative effect of these changes is so far-reaching as to make poverty itself a major global scourge.<sup>2</sup>

In other words, poverty — poor people — is viewed as one of the primary causes of environmental destruction; the poor may be the victims, but so too are they the agents, the perpetrators. In the half-decade since the Brundtland Report's publication, a number of analysts have supported this contention about the

<sup>\*</sup>The author would like to thank the John D. and Catherine T. MacArthur Foundation and the Southeast Asia Council of the Association for Asian Studies (through its Small Grants to Isolated Southeast Asian Scholars Program, funded by the Luce Foundation) which provided support for research and writing. The author is extremely grateful to John Cavanagh, David Korten, and three anonymous referees for insightful comments on an earlier draft of this article and to Christine Chin who provided expert research assistance. The Philippine case study presented in this article is expanded upon in Robin Broad with John Cavanagh, *Plundering Paradise: The Struggle for the Environment in the Philippines* (Berkeley: University of California Press, 1993). Final revision accepted: December 22, 1993.

basic correlation between environment and poverty—terming the relationship the "intertwining of environmental problems and poverty" or the "poverty and environment connection . . . inseparable twins." Much of this thinking is fairly deterministic: if one is poor, then one degrades. As the United Nations Human Development Report phrased it in 1990, "poverty is one of the greatest threats to the environment." Again the correlation was stressed in an International Monetary Fund article in 1993: "Poverty and the environment are linked in that the poor are more likely to resort to activities that can degrade the environment."

Second, much of the conventional literature builds on this basic relationship to suggest a negative correlation between poverty and sustainable development. If people cannot be poor without subordinating the environment, if poor people must sacrifice the environment, then poor people cannot in their present state practice sustainable development. This follows from the Brundtland Report's oft-cited definition of sustainable development as that which "meets the needs of the present without compromising the ability of future generations to meet their own needs." Since poor people are seen as being short-term maximizers forced to degrade in order to survive — almost by definition they cannot think of the future. As the Brundtland Report phrased it: "Poverty reduces people's capacity to use resources in a sustainable manner; it intensifies pressure on the environment."8 Or as a World Bank Environment Department publication explained, the poor "have a small margin for curbing or foregoing present consumption in order to avoid damaging or depleting the natural resources on which they depend for survival."9 Instead, the poor find themselves locked in a "downward spiral" of environmental degradation leading to increased poverty forcing them to further degrade the environment.

The third widely accepted component of the relationship underlying the conventional paradigm focuses on the need for economic growth to break this poverty-environment downward spiral. This logic builds on oppositional thinking; the accepted dichotomy is between nonenvironmentalism and the poor versus environmentalism and the rich. If much of the environmental problem is poverty, then eliminating poverty and poor people through growth becomes key to saving the environment11 - the means to combat the poverty-induced degradation (proposition 1) and to instill the longer term vision necessary for sustainable development (proposition 2). As Grossman and Krueger suggest, "As a society becomes richer its members may intensify their demands for a more healthy and sustainable environment, in which case the government may be called upon to impose more stringent environmental controls."12 It was this logic that lead the World Bank's 1992 World Development Report on development and the environment to push a policy agenda of "poverty alleviation" centerstage — as it had been (at least in rhetoric) in the 1970s, but this time not only as a "moral imperative" but as an ecological one.<sup>13</sup>

### 2. THE POLITICAL ECONOMY PERSPECTIVE

For the most part, the crux of the conventional analysis centers around this trio of presumed correlations. Increasingly, however, researchers who are from the Third World or who have conducted fieldwork in the Third World, have begun to break down these conventionally accepted relationships in at least three important ways through analyses focused on the political economy of natural resource degradation.

First of all, a small but growing literature moves beyond presenting the poor as ignorant and short-sighted squatters, colonists and "slash-and-burn" agriculturists, and instead asks the key question: why are the poor poor? Seeing the poor as merely the proximate cause of environmental degradation in places such as the Brazilian Amazon, several analysts who come from a political economy perspective seek to refocus the inquiry onto the ultimate causes of poverty rather than on poverty or the poor themselves. As Thrupp explains in her study of Costa Rica:

This view sets priorities within the social dimensions of resource development issues, addresses inequities in resource distribution, and emphasizes the political and economic roots of the problem. In this view the success of resource-related initiatives depends on whether they meet the needs of the poor and contribute to goals of improving human welfare, social justice, and equity in resource distribution, and ultimately whether they counteract powerful forces that cause the problems.<sup>14</sup>

In other words, "the mainstream perception of the link between poverty and environmental degradation," as Lele has argued in an article that critiques the conceptual and operational inadequacies of the term sustainable development, is "an incomplete characterization." <sup>15</sup> Indeed, as the present author has suggested elsewhere, for the political economy analysts the key relationship revolves around the role of the rich in both the North and the South as environmental degraders — both directly through activities such as commercial logging and indirectly through inequitable landholdings. <sup>16</sup>

Other researchers, typically using anthropological or sociological research techniques, have begun to deconstruct the oppositional thinking in the poorenvironment dyad by bringing forth evidence and arguments that some poor people act not as environmental degraders, but as environmental sustainers. Relevant here is a rich literature arguing that some poor communities of indigenous peoples and other long-term residents of fragile ecosystems have served

as laudatory and effective environmental managers and stewards.<sup>17</sup>

Geographer Sheldon Annis, first in a case study of Costa Rica and then as editor of a volume on Central America, presents the case for a disaggregation of the analytical category of "poverty" to understand the conditions under which the poor relate to the environment in these two diametrically opposed ways. Annis describes the "merely poor" — peasants with secure land tenure who are environmental sustainers:

Such poor, but not impoverished, farmers typically manage resources with great care, even elegance. They optimize the use of every microscopic scrap of resource — every ridge of soil, every tree, every channel of water, and every angle of sunlight. They protect what they must depend on for their families' future.<sup>18</sup>

He distinguishes from this category that of the "very, very poor" — the "landless and rootless" subsubsistence peasants and squatters who "as a matter of practical survival. . . . have fewer personal disincentives to cut forest cover, consume wildlife, and plant annual crops on slopes that will erode." This meshes with the global categories of Worldwatch Institute's Alan Durning's one billion living unsustainably at or below subsistence levels and three billion who live sustainably at a scale below or equal to their ecosystem's carrying capacity (and 1.25 billion unsustainable overconsumers). <sup>20</sup>

Still others within the political economy paradigm (including some who have focused research on new social movements) are examining environmental politics, including cases where the poor become environmental activists. Several analysts document the poor becoming not victims doomed to the downward spiral, not agents of destruction, and not merely sustainers, but positive actors — participants in grassroots "ecology movements."21 The best-known example cited is the late Chico Mendes, turned environmental activist in his political struggle to maintain the sustainable life-style of his community of rubber tappers.<sup>22</sup> A reader need only flip through any issue of the British journal The Ecologist or the Malaysian Third World Resurgence journal to find numerous case studies of the poor being involved in protecting the environment - replanting trees, confronting commercial loggers, struggling against enclosure of ancestral lands, fighting for indigenous and community resource management. Worldwatch's Alan Durning is among the chroniclers of this grassroots action, 23 as is Ethiopian scholar Fantu Cheru who writes of Africa: "From the Naam movement in Burkina Faso to women's treeplanting cooperatives in Kenya, grassroots organizations across Africa have taken a leading role against environmental degradation."24

These political economy critiques of the conventionally assumed correlations between the poor and the environment can, as Vandana Shiva has written,

be summarized as decidedly different answers to the question: "Who protects which environment from whom?" In answering that inquiry, a number of political economy analysts argue that the image of the poor and the environment emerging from the conventional literature is distorted and that there is a need to create new sets of analytical categories to enhance in a dynamic manner our understanding of the relationship between the poor and the environment. <sup>26</sup>

## 3. THE PHILIPPINE CASE STUDY

The aim of the remainder of this article is to add to those categories and that understanding based on evidence brought forth in an extensive case study of the Philippines. That case study is based on field trips to rural areas in the Philippines in 1988–89 and again in 1991. We selected communities from all regions of the Philippines (Luzon, the Visayas and Mindanao) where the primary occupation was either small-scale mining, fishing, or farming. The sites were chosen, in part, to correspond with areas where we had done research (and/or lived) in 1977-78 and 1980-81 before the current widespread ecological damage. We strove for a mix of indigenous communities, communities where occupants had lived for several generations, and communities of recent migrants. Our field research included mining areas in South Cotabato and the Cordillera mountains; fishing communities in the provinces of Bataan, Palawan, and Siguijor and in southern Mindanao; and farming communities in Bataan, central Luzon, Palawan, Bukidnon, and South Cotabato.

All over the country, we found fragile tropical ecosystems in collapse. We lived with and interviewed poor people who were becoming poorer, pushed by ecological collapse below subsistence levels. Yet, in our research, we found many of the poor extremely future oriented — very concerned that the environmental degradation would deprive their children (if not themselves) of their means of livelihood. In addition, we discovered a number of these people transformed into environmental activists.

As will be discussed below, our research results refute the conventional paradigm's environmental-poverty juxtaposition. In addition, the results suggest further extensions of the political economy literature. Indeed, key questions emerge from the literature reviewed thus far that we will begin to answer through the Philippines case study: What do the words and deeds of the poor tell us about their motivations and values? What are the conditions necessary for poor people to see environment and development as compatible and, regardless of the macroeconomic conditions, to pursue development strategies based on sustainable environmental management? What is the relationship between Annis's "environmental

sustainers" and environmental activists? How is that activism related to the very issues of political economy found to underlie Southern environmental problems? Finally, overall, what are the conditions under which poor people become environmental activists?

The results of our Philippine research lead us to delineate three conditions as necessary for poor people to become environmental activists, conditions based both on the people's relation to their ecosystems and on the state of civil society:

- Environmental degradation is threatening the natural resource base off of which the poor live;
- Poor people have lived in an area for some time or have some sense of permanence there; and
- Civil society is politicized and organized.
  These three conditions are expanded upon in turn.

# (a) Environmental degradation as a threat to livelihood

This first point is grounded in an understanding of peasant perceptions of the environment and of ecological collapse. In countries such as the Philippines, large subsistence sectors depend primarily on natural resources. To live, poor people eat and sell the fish they catch or the crops they grow — and typically those who manage to subsist in this way do so with very little margin. Natural resource degradation often becomes an immediate and life- and livelihood-threatening crisis — a question of survival.

This relationship is all the more evident in the Philippines which, as largely a volcanic island archipelago, has extremely fragile ecosystems. In numerous places in the Philippines, we witnessed environmental degradation precipitating a direct and widespread threat to the survival of the rural poor. Our contention is that it was this very threat to survival—the very fact that (to borrow Meadows, Meadows, and Randers's phrase) the ecological "limits" have been exceeded<sup>27</sup>—that motivated poor Filipinos not to degrade the resources as the conventional paradigm would posit but to act in their defense.

Let us cite one revealing case study of environmental activism in the Philippines to demonstrate the point. In the town of San Fernando in the southernmost Philippine island of Mindanao, we interviewed peasants who had staged a series of daring direct actions against commercial loggers — first, sitting down in front of the logging trucks that passed through their remote town, then blockading logging trucks in the provincial capital, and, subsequently, staging a "fast for the trees" in Manila. As we interviewed the participants, it became clear that to understand why they acted, one needed to comprehend their changing relationship to the environment. Most were poor peasants who grew rainfed rice and corn on land they did not own; 90% of San Fernando's 33,000

inhabitants were small farmers without title to the land they tilled.<sup>28</sup> In decades past, they had few if any savings and they led arduous lives, but they had enough to eat. As one of the blockaders, an elderly man, explained: "Food was plentiful. There was plenty of fish, plenty of corn, and plenty of rice."

By the mid-1980s, however, we were told, "big serious problems" began to appear. All involved ecological degradation; many had to do with water. The elderly man continued: "Before, even if it did not rain for two months, my field would not dry up. Now it dries up after two days without rain. . . And our topsoil has become thin because of the erosion." Some harvests fell by more than 50%. Creeks nourished by once-forested watersheds disappeared during the rainy season. In formerly flood-free areas, the river began to overflow its banks. In the last five years, one peasant who cultivated land on a river bank lost nearly half of the land he farmed.<sup>29</sup>

The people we interviewed said they came to understand that the problems were the result of widespread commercial logging in the mountains surrounding San Fernando. The once-lush forests were disappearing by the 1980s, leaving less than 20% of Bukidnon's forests intact. As a young woman who participated in all three direct actions explained to us:

Without trees, there is no food, and without food, no life ... The forests are disappearing, and so the soil of our rice field is being washed to the sea. There will be no soil left by the time our children are grown. What, I wonder, will become of them? How will they grow rice?

In other words, once environmental degradation began to transform poor people who lived in a stable ecosystem into marginal people living in vulnerable and fragile ecosystems, they acted. Recall that Grossman and Krueger hypothesized that enrichment brings environmental values and motivations. While under certain circumstances this may be true, our research suggests that looking at growth and poverty alleviation as the means to instill environmentalism misses a key point: in the Philippines environmentalism was a demand of the poor, not of the rich.<sup>30</sup> More specifically, it was a demand of environmental sustainers who were being pushed by environmental degradation into the ranks of Annis's very, very poor, environmental sustainers who were trying desperately to hold onto their ability to subsist in the face of new vulnerabilities and insecurities. It was a demand of the poor trying to live off of a natural resource base pushed beyond its ecological limits.

This is not to romanticize the condition under which people such as the San Fernando peasants lived in the past nor to deny the instances around the world when poor people have become environmental destroyers. It is, however, to stress that until recently the San Fernando peasants had lived with some amount of security or, at least, had access to fertile

lands and a stable ecosystem that provided them a hedge against falling into the ranks of the very, very poor. "A secure subsistence," as Scott argued in his seminal work *The Moral Economy of the Peasant*, is "the critical problem for the peasant family" and should be placed "at the center of the study of peasant politics." Scott explained:

The central role of security for the peasantry suggests that interpretations of peasant politics based on their deprivation in income terms may fail to do their circumstances justice. It implies, for example, that downwardly mobile peasants may resist *most* bitterly at those thresholds where they risk losing much of their previous security.<sup>32</sup>

Scott's work analyzed how colonialism or agricultural transformations brought peasants past these thresholds; our research demonstrates how ecological degradation threatens what Scott terms peasants' "right to subsistence." It is the jeopardization of that right — and not growth — that leads poor communities to act in defense of the environment.

## (b) A sense of permanence

This second condition further delineates the relationship between poor people and ecosystems and is ripe for further research. Our own research suggests that those poor who have had historically sustainable roots in the land or other natural resources (ideally for a minimum of one generation) are more likely to become environmental activists than are relatively new migrants, without such attachments or the experience of living at a scale within the ecosystem's carrying capacity.

Across the Philippines, we found the most determined grassroots environmental activists where this condition was satisfied. Most participants in the San Fernando pickets, for example, were migrants to the area but they had been farming in the area for at least one generation and most believed that their families were likely to continue to live there. Another notable case study involved indigenous gold miners in Itogon, in the province of Benguet, north of Manila on the island of Luzon. Descendants of many generations of indigenous Igorot, these so-called pocket-miners mined "as did our grandfathers before us," as one explained to us. Most we met were second- to fifthgeneration pocket-miners, who tediously hammered and chiseled their way up to 50 meters inside the mountain looking for gold. These small-scale mining operations did not threaten the area's ecology but did offer a livelihood. Over the years, the pocket-miners had been able to feed families, build simple but sturdy homes, and even send their children to school.

In interviews, the people of Itogon traced their troubles back to the early 1980s, when Benguet

Corporation, with a vast gold-mining concession from the Philippine government, began bull-dozing openpit (or strip) mines in this area without consulting the Itogon community. Soon thereafter the residents started to notice some disturbing environmental trends, including disruption of water supply, toxic chemicals in the water, and air pollution. As the encroachment of the large-scale operations on the areas of the indigenous miners spread, so did the adverse ecological impact of the large-scale mining. Like the peasants of San Fernando, the Itogon pocketminers were witnessing the start of the downward spiral, the demise of their historical ability to act as environmental sustainers. In addition, much like the San Fernando peasants, the pocket-miners and their families set up a small barricade in 1990 to stop the openpit mine. Today, a movement of the pocket-miners is challenging the rights of the few to mine in a fashion so detrimental to the many longer term inhabitants.

As Ted Gurr wrote some years ago as he grappled with the question of what moved peasants to political action, people "in these circumstances are angered over the loss of what they once had . . . "34 In such places as San Fernando or Itogon, development has entailed enclosing the environment, and, in the process, the long-term inhabitants themselves become marginalized and disenfranchised.35 Longer term inhabitants who have developed an intimate knowledge of the ecosystem on which they live are, in the words of The Ecologist, displaced by "enclosers" who "once they have taken over land . . . unlike families with ties and commitments to the soil, can mine, log, degrade and abandon their holdings, and then sell them on the global market without suffering any personal losses."36 Enclosure, The Ecologist argued, "redefines how the environment is being managed, by whom and for whose benefit."37

This second condition is revealing as to why some poor act as environmental degraders. Juxtapose this longer term relationship with the situation of recent migrants. Poor people pushed out of lowlands into uplands and forests, as seen in the Amazonian migration, do not have this historical relation to the ecosystem.38 Nor, we discovered, did the small-scale gold miners in Davao del Norte in the southern Philippines who migrated recently as part of a huge gold rush and, unlike the Itogon pocket-miners, used toxic mercury in their operations. In other words, this condition highlights the potential environmental deadliness of what the political economists see as the "push" and "pull" factors: among them, the grossly unequal land tenure structure that pushes the poor onto fragile ecosystems and the logging roads that serve as "the arteries of forest destruction" pulling lowlanders to areas that would have been inaccessible to them had it not been for commercial logging operations that pre-

This condition is also related to a key tenet of the

political economy literature. While length of tenure affects a community's perception of and relationship to their land, minerals, forests, or marine resources, equally important is the security of people in terms of their control over the land or resources. As Khor stressed, "local control, while not necessarily sufficient for environmental protection, is necessary..."40 People will be more willing to take care of land and other natural resources, to act as environmental sustainers, if they have secure rights — this is part of what leads to the long-term view inherent in the Brundtland Commission's definition of sustainable development.<sup>41</sup>

### (c) Organized citizen movements

This third necessary condition — that the fabric of civil society include well-organized units - seems most ignored in the literature thus far. Yet our research suggests that the state of civil society is key for understanding how poor people choose to react to the loss of what has historically been their source of subsistence. This should come as no surprise: If, as has been argued, the loss of the natural resources off of which people have lived entails a process of enclosure, so too do attempts by the disenfranchised to reclaim it become attempts to reclaim and redefine power. Thus, environmental activism involves people becoming agents of social change. A politicized civil society, a civil society accustomed to using political space for organized action, gives people what Scott terms "the possibility to act."42 It enables them to transcend what he has found to be "obstacles to collective action"43 among the poor, and respond to the destruction not through his "weapons of the weak,"44 but through what Falk calls "direct resistance activities by civil society."45

For our Philippine research, therefore, the question became not just do poor people care about environmental degradation - inherent in conditions (a) and (b) — but are they in a position to do something about it or to contemplate doing something about it as a collective rather than as individuals. The answer to this in the Philippines requires an examination of the origins, nature and characteristics of Philippine social movements, the organized part of civil society. Indeed, our research suggests that the richness of the Philippine case study in terms of environmental activism is directly related to the historical vibrancy of that civil society, creating what could be called a culture of empowerment (even during periods of authoritarian rule). For activity related to the environment, Philippine civil society has become a web of pressure groups — a mixture of new and old social movements, groups that see themselves as environmental and others that see themselves as struggling for land rights, mining rights, fishing rights, and a wide array of development issues.

Four main strands of this web stand out. The strand with the longest history involves large, mass-based people's organizations made up of members of a particular grassroots constituency. In other words, these people's organizations (POs) build horizontally along social and economic sectors. By our calculations, for instance, well over a million Filipino workers belong to one of several large trade union movements. Likewise, over a million Filipino peasants belong to one of several major peasants' associations. Smaller but still significant people's organizations exist among women, fishers, urban poor, students, teachers, and indigenous Filipinos.

Growing out of different progressive political parties and groupings, most of these sectoral groups were born during the era of Marcos's martial law, and much of their energy was spent fighting that regime's often brutal repression of their memberships. Over the past half-dozen years, as ecological degradation became a primary concern of their largely poor membership, the organizations have taken on more of an environmental focus. Although the membership of some of these groups has dwindled with the erosion of the traditional left, they remain among the most vibrant in Asia with the possible exception of India.

One such group is LAMBAT, an organization of fishers in the province of Bataan formed in 1986. Like many Philippine people's organizations, LAMBAT has individual chapters of fishers in the province's towns, which are affiliated with a provincial chapter that is, in turn, affiliated with a national umbrella group. LAMBAT's goals range from rehabilitation of Manila Bay and Bataan's rivers, to stronger sanctions against factories dumping wastes in the bay, to providing members with social services and livelihood programs, to striving for more equal distribution of fishing resources.

Often intertwined with these mass people's organizations is a second strand: thousands of nongovernmental organizations (NGOs) that seek to facilitate the aims of the POs. Some focus on education, others conduct research and serve as advocates for policy and legal reform, and still others channel funds from foreign donors into socioeconomic projects aimed at empowering the nation's poor majority. Again to use the example of Bataan: development workers at the Philippine Rural Reconstruction Movement's Bataan branch, through education and training sessions in various locations across the province, are helping to strengthen the community-organizing work of groups such as LAMBAT and to start livelihood, credit, and health programs.

As with the POs, in recent years these NGOs have expanded their understanding of development to place far greater emphasis on ecological sustainability. Moreover, in a move revealing of the politicization of Philippine civil society, since 1986 they have also begun to cross sectoral and political lines and work

together in national coalitions or umbrella groups—an advanced form of the "new social networks" that Annis has documented in Latin America.<sup>46</sup> The Caucus of Development NGO Networks (CODE-NGO) is one example. It is a coalition of 10 major national NGO networks (several defined by either political tendencies or religious denominations) consisting of over 1,300 development NGOs whose operations extend to every region of the country.

Similarly demonstrating the organizational density of civil society, many of the sectoral groups have come together to form issue-based coalitions that focus on advocacy and education at the national level. These include the Freedom from Debt Coalition which brings together several hundred citizens' groups to press for a reduction in debt-service payments and to link that reduction to more sustainable development.

By our calculations, together, these formally organized POs and NGOs comprise up to 5-6 million Filipinos, or around a tenth of the Philippine population — a highly organized base within civil society.

A third strand is made up of the newer and more spontaneous and localized citizens' organizations that are emerging as local people react to local environmental crises. A good example is the logging-truck blockaders of San Fernando. These more spontaneous environmental actions often call upon the historically organized parts of civil society to help them through education or information — as in San Fernando where part of the organizing period involved educational seminars on ecology conducted by a group of Filipino missionaries based in the area. It is important to stress that we are not describing a third strand borne of a conscious decision by these older organizations to organize the unorganized. The local organization came first; it turned to existing organizations for help. As an old man in San Fernando explained to us: "It was our own thinking that saw these connections and we asked [the missionaries] to set up seminars to help us understand further." In an interview, one of the missionaries concurred: "We were not experts in ecology; we were not planning to have studies or meetings about ecology. But it was the issue the people were most interested in."

The fourth and final strand is the relatively new phenomenon of organizations that call themselves environmental and are slicing civil society horizontally and vertically, building up their ranks not only from the POs and the NGOs but also from previously unorganized concerned citizens of the middle and even the upper classes. Most of these groups started with more narrowly defined conservation issues as their foremost concerns and built from there to a more expansive understanding of sustainable and equitable development. Haribon, one of the Philippines' largest environmental organizations, for instance, began in 1972 as a rather elite bird-watching group. In

1986–87, however, starting with its national campaign to save Palawan (one of the country's last intact tropical rainforest ecosystems) from loggers, the organization redefined its very conception of environmental work to revolve around even broader questions of sustainable and equitable development.<sup>47</sup> Haribon now has more than 10 provincial chapters that reach into civil society vertically, not horizontally as do the POs.

As the development NGOs and POs used the space offered by a politicized civil society to launch new, experimental coalitions, so too at the onset of the 1990s the environmental movement took a major step with the organization of two nationwide networks that have well-articulated environmental agendas: the Philippine Environmental Action Network (PEAN), a coalition of nearly 100 organizations centered on several major sectoral people's organizations, and the Green Forum-Philippines, a self-described "NGO-People's Organization-Church Forum on Social Equity, Sustainable Development and Environment." Advancing the sustainable development agenda, Haribon, the Green Forum, and others of the longer established citizens' groups are deliberately trying to reach out beyond the 10% of the populace that is already organized, to create new alliances that can challenge traditional power centers more effectively.

Our argument is not that these four strands come together in a unified movement within civil society; they do not. Rather, the point centers on understanding how the poor, when threatened by ecological destruction of their historical resource base, choose to react — that is, poor people's environmental politics.

To repeat: The four strands we have described evolved out of the environmental problems of the Philippines. We unearthed no evidence that any of these four was catalyzed by the deliberate intervention of an external NGO. It is true, however, that links to international environmental organizations have subsequently assisted some of the Philippine popular organizations and NGOs. Greenpeace, for example, has conducted training sessions in the Philippines on toxic wastes. In addition, a number of Philippine groups have collaborated with organizations from the United States, Japan, and other countries either to oppose unsustainable projects or to advocate new kinds of environmental lending.

Our contention is that this new environmental activism is partially a question of poor people's perception of political space. A densely webbed civil society, such as in the Philippines, creates a culture of popular resistance, allowing for, as Falk described it in a general context, a situation "where political systems and cultural settings... regard social movements as natural modes of popular participation." The very texture of Philippine civil society enables poor peasants or fishers or miners to find the possibility of collective action either through established channels of resistance or through new organizations.

Furthermore, as the density of such organizations — seen in the creation of new organizations and the realignments of old — demonstrates, the Filipino poor find within civil society more than just a culture of political activism. They find the possibility of hope. Again to quote Falk in a general context:

Critical to popular resistance is the belief, even if it is only implicit, that preferable alternatives do exist, that dominant forms are not omnipotent, and that every person can participate in the work of defining acceptable forms of social reality.<sup>49</sup>

### 4. CONCLUSION

We have used a case study of the relationship between the poor and the environment in the Philippines to deconstruct the oppositional thinking inherent in the conventional literature. Presented as a contribution to the political economy paradigm within the environment and development field, this case study leads to new ways to think about conditions under which poor people become not only positive agents vis-à-vis the environment but environmental activists. As we have demonstrated, new sets of analytical categories must be employed to understand the relationship. Categories need to be more nuanced than simply rich-poor, environmentalist-non-environmentalist, for as we have seen the relationship between the poor and the environment depends on the poor's historical relationship to their natural resource base, their perception of the future of that relationship, and the historical state of collective action within civil society.

This article has attempted to open a new area of inquiry on which the Philippines sheds a great deal of light. As with any new area of inquiry, it demands further research. Where does the Philippine case study—and the conditions we have derived for environmental activism among the poor—lead us in terms of implications for other countries? Some of these have already been suggested, but let us highlight other implications that should provide fuel for future researchers.

With respect to the first condition concerning environmental degradation reaching a level that adversely affects the subsistence of poor people, countries whose ecosystems are at risk can be gleaned from yearbooks (such as those published by the World Resources Institute and the U.N. Food and Agricultural Organization) that present statistics on deforestation and other indicators of resource degradation. By our argument, countries with rapid rates of deforestation over time, high rates of coral reef destruction in areas with large fisher populations, or widespread large-scale mining are likely sites for environmental activism among the poor. Care should be taken, however, to note regional differences within

large countries such as Brazil and Indonesia where some regions may be in ecological crisis and others still quite pristine; such differences will be masked in aggregated national figures.

We also must pause to reflect on a pessimistic implication of this first correlation we posit between extent of degradation and degree of activism. It suggests that poor people may be motivated to act only after their ecosystems have reached such a severe state of degradation that it adversely affects their livelihood.<sup>50</sup> This leads us to wonder: Must poor people actually experience the loss of subsistence for the ecological crisis to feel real? Or might there be cases of creating broad awareness among poor communities of impending ecological crisis before it actually affects their subsistence? Annis suggests that new technologies are increasing communication and education among local citizen groups in Central America;51 the Rio Earth Summit and other for a have offered growing transnational connections among citizen groups globally. Could such links, be they local or global, help raise consciousness of the imminent crisis in communities not yet at extreme risk — and actually catalyze environmental activism among the poor at an earlier, more hopeful point?

Our second condition, the connection between poor people's length of residency and security of tenure and their environmental concerns, also raises research questions. The correlation can be further tested by studying the environmental actions of newly displaced or migrated communities versus stable ones. Our research suggests, for instance, that development initiatives to move large numbers of people, such as Indonesia's transmigration program, are likely to have adverse environmental consequences that planners failed to foresee. In addition, the importance of secure land tenure to the environmental practices of poor people deserves deeper study. Since the majority of forested areas in most developing (and many developed) countries is under state control, as many as tens of millions of poor people in some countries are designated squatters on the land. We hypothesize that their lack of security might precipitate a shorter term approach toward the need to use sustainable farming or mining techniques. Comparative studies of the environmental sustainability of residents with secure land tenure versus those who are squatters are called for.

A related research need involves probing deeper into the concept of tenure security. In this article, we have carefully chosen language to suggest that the critical variable is the sense of permanency, rather than a specific tenurial relation such as private property rights. David Korten, president of the People-Centered Development Forum, raises some important distinctions that can help steer future researchers:

Perhaps [we should] distinguish between permanent

residents and itinerants, highlighting the link to place and community. It makes the difference between those who are linked to place and those who assume that if things go bad...you can always go off looking for new opportunities elsewhere. This will be highly correlated with longevity in a place, but it is the future expectation that is critical. This of course explains why the rich, particularly in the form of corporations with no roots, are likely to be so insensitive to the environmental consequences of their actions. They may have been around for a long time, but they are less likely to be tied to place, especially to the place in which they are doing environmental damage.<sup>52</sup>

The final connection — focusing on the degree of organized civil society influencing poor people's actions toward the environment — suggests other regions and countries ripe for environmental activism. In Durning's review of global civil society, for example, he concluded that: "By many accounts, Asia has the most active communities," followed by Latin America.<sup>53</sup> More specifically, according to Falk, "India, for instance, has emerged as a hotbed of grassroots environmentalism with hundreds of separate, independent groups as well as more generally concerned organizations."<sup>54</sup> A more serious assessment of the historical state of nongovernmental and people's organizations across the South is needed.

In countries without such politicized civil societies, we would expect to find environmentalist activity more along the lines of Scott's "weapons of the weak": "ordinary weapons of relatively powerless groups: foot dragging, dissimulation, desertion, false compliance, pilfering, feigned ignorance, slander, arson, sabotage, and so on."55 Research is also warranted on whether this much more indirect, individual, and often unorganized form of political expression has positive impacts on the environment. By contrast, countries with a mature civil society combined with other conditions of degraded ecosystems and communities of longer term inhabitants are most likely to produce a spread of the kind of environmental activism that we have analyzed in the Philippines.

Further case studies of the conditions under which poor people become environmental protectors and activists will be important to further this article's goal to break down widespread misconceptions about the relationship between the poor and the environment, to challenge some of the conventional assumptions of academic inquiry in this area, and engender new understandings of the relationship between environment and development.

## **NOTES**

- 1. World Commission on Environment and Development (1987), p. 3.
- 2. World Commission on Environment and Development (1987), p. 28.
  - 3. Mellor (1988), title.
- 4. Leonard (1989), pp. 6, 19.
- 5. United Nations Development Program (1990), p. 7.
- 6. IMF Survey (June 14, 1993), p. 187.
- 7. World Commission on Environment and Development (1987), p. 8.
- 8. World Commission on Environment and Development (1987), p. 49.
- World Bank (1989), p. 4.
- 10. This phrase is used by (among others) Leonard (1989), p. 8, and Durning (1989a).
- 11. See the work of Daly, Korten and others who argue that more economic growth brings with it a scale of human activity that cannot be sustained by the earth's carrying capacity. See Daly and Cobb (1989); Goodland, Daly, and El Serafy (1991); and Korten (1991–92). See also Lele (1991).

- 12. Grossman and Krueger (1991), p. 7.
- 13. See, for instance, World Bank (1992), pp. 23, 30. See Lele (1991) for an insightful analysis of the historical evolution of the "mainstream" use of the term sustainable development.
- 14. Thrupp (1990), p. 248 (emphasis added). See Blaikie (1985), on whose framework Thrupp builds. Others who build on Blaikie include Peluso (1992) and Millikan (1992). For views from the South, see Bandyopadhyay and Shiva (1989) and Vitug (1993). See also O'Connor (1989); O'Connor (1991); and Faber (1992).

Increasingly, even conventional analyses have a caveat to this effect, explaining that the poor are victims, pushed to act as environmental degraders. For the "political economy" paradigm of environment and development, however, it is more than a caveat; it is the core of the inquiry.

- 15. Lele (1991), p. 613.
- 16. See Broad and Cavanagh (Spring 1993).
- 17. See, for instance, Durning (1992b); Clay (1990); Moody (1988); Lynch (1991); and Fay (1989).
- 18. Annis (1992a), p. 11. See also Annis (1990); Annis (1987); and Stephen (1992).
- Annis (1992a), p. 11.

- 20. See Durning (1992a) and Durning (1991).
- 21. Bandyopadhyay and Shiva (1989), pp. 37-60.
- 22. Mendes with Gross (1989).
- 23. See Durning (1989b).
- 24. Cheru (1992), p. 501.
- 25. Shiva (1991), p. 1.
- 26. See, for instance, Lele (1991) and Faber (1992).
- 27. Meadows, Meadows, and Randers (1992).
- 28. Jabla (1990), p. 7.
- 29. See Arquiza (1989) and Gaspar (1988).
- 30. A related (but tangential for the purpose of this article) critique of those who posit economic growth as a solution to the environmental and developmental problems delves into the historical relationship between economic growth and poverty alleviation. As Lele asks: "But was it not the fact that economic growth *per se* could not ensure the removal of poverty that led to the adoption of the basic needs approach in the 1970s?" Lele (1991), p. 614. See also Broad and Cavanagh (1993b); Faber (1992); Korten (1991–92); Goodland, Daly, and El Serafy (1991); O'Connor (1989); and Daly and Cobb (1989).
- 31. Scott (1976), pp. vii, 3.
- 32. Scott (1976).
- 33. Scott (1976), pp. 33, 176.
- 34. Gurr (1970), p. 46.
- 35. On this, see The Ecologist (1992).
- 36. The Ecologist (1992), p. 128.
- 37. The Ecologist (1992), p. 152.
- 38. See Millikan (1992) and Mendes (1989).
- 39. See Kummer (1990). Quote is from Nestor Baguinon, "Development and Conservation of Indigenous Non-Dipterocarp Trees and Shrubs," paper prepared for National

- Conference on Genetic Resources and Development, Tagaytay City, September 2–6, 1987, quoted in McDonagh (1990), p. 83.
- 40. Martin Khor (Khor Kok Peng), presentation at World Rainforest Movement meeting on land insecurity and tropical deforestation, March 1, 1992, New York, quoted in *The Ecologist* (1992), p. 128.
- 41. On this, see Fay (1989); Lynch (1991); Lynch and Talbott (1988); and Korten (1993).
- 42. Scott (1976), p. 227.
- 43. Scott (1985), p. 244.
- 44. Scott (1985).
- 45. Falk (1992), p. 77.
- 46. See Annis (1991), p. 106.
- 47. On Palawan, see Broad and Cavanagh (1989).
- 48. Falk (1992), p. 130. We also borrow Falk's definition of social movements: "I use the term 'social movements' in a non-rigorous way to cover the range of normative pressures mounted against the state and societal policies and practices from within civil society, whether or not the behavior achieves organizational persistence and identity by becoming a social movement in a rigorous sociological sense." Falk (1992), p. 73.
- 49. Falk (1992), p. 109. For more on NGOs and civil society, see Fisher (1993); Korten (1990); Clark (1990); and Drabek (1987).
- 50. I am indebted to my colleague David Hirschmann for highlighting this implication.
- 51. Annis (1991), pp. 93-106.
- 52. David Korten, correspondence with author, July 19, 1993.
- 53. Durning (1989b), pp. 9, 11.
- 54. Falk (1992), p. 151.
- 55. Scott (1985), p. xvi.

## REFERENCES

- Aldaba, Fernando T., "The CODE-NGO: Unifying the development NGO community," *Development NGO Journal*, Vol. 1, No. 1 (1992), pp. 1–14.
- Annis, Sheldon (Ed.), Poverty, Natural Resources, and Public Policy in Central America (New Brunswick, NJ: Transaction Publishers for the Overseas Development Council, 1992a).
- Annis, Sheldon, "Evolving connectedness among environ-
- mental groups and grassroots organizations in protected areas of Central America," *World Development*, Vol. 20, No. 4 (April 1992b), pp. 587–596.
- Annis, Sheldon, "Giving voice to the poor," Foreign Policy, No. 84 (Fall 1991), pp. 93–196.
- Annis, Sheldon, "Debt and wrong-way resource flows in Costa Rica," Ethics and International Affairs, Vol. 4 (1990), pp. 107-121.

- Annis, Sheldon, "Costa Rica's dual debt: A story from a little country that did things right," Unpublished manuscript (Washington, D.C.: World Resources Institute, 1987).
- Arquiza, Yasmin, "To fast for Mother Earth," National Midweek, Vol. 4, No. 42 (October 25, 1989), p. 4.
- Asian NGO Coalition-Manila, IRED Asia-Colombo, and the People-Centered Development Forum-New York, "Economy, ecology, and spirituality Toward a theory and practice of sustainability," Statement (New York: People-Centered Development Forum, August 1993).
- Bandyopadhyay, Jayanta, and Vandana Shiva, "The political economy of ecology movements," *IFDA Dossier* No. 71 (May/June 1989), pp. 37–60.
- Beckerman, Wilfred, "Economic growth and the environment: Whose growth? Whose environment?" World Development, Vol. 20, No. 4 (April 1992), pp. 481–496.
- Blaikie, Piers, *The Political Economy of Soil Érosion* (New York: John Wiley & Sons, 1985).
- Broad, Robin, with John Cavanagh, Plundering Paradise: The Struggle for the Environment in the Philippines (Berkeley: University of California Press, 1993a).
- Broad, Robin, and John Cavanagh, "Beyond the myths of Rio," World Policy Journal, Vol. 10, No. 1 (Spring 1993b), pp. 65-72.
- Broad, Robin, and John Cavanagh, "Marcos's ghost," The Amicus Journal (of the Natural Resources Defense Council), Vol. 11, No. 4 (Fall 1989), pp. 18–29.
- Broad, Robin, Unequal Alliance: The World Bank, the International Monetary Fund, and the Philippines (Berkeley: University of California Press, 1988).
- Cheru, Fantu, "Sustainable development in Africa," World Development, Vol. 20, No. 4 (April 1992), pp. 497–512.
- Clark, John, Democratizing Development: The Role of Voluntary Organizations (West Hartford, CT: Kumarian Press, 1990).
- Clay, Jason W., Indigenous Peoples and Tropical Forests: Models of Land Use and Management in Latin America (Cambridge: Cultural Survival, 1988).
- Corpus, Victoria Tauli, Environment and Development: The Indigenous Peoples' Perspective, Philippine Development Briefing No. 2 (London Catholic Institute for International Relations, November 1992).
- Daly, Herman, and John Cobb, For the Common Good: Redirecting the Economy Toward Community, the Environment and a Sustainable Future (Boston: Beacon Press, 1989).
- Drabek, Anne Gordon (Ed.), "Development Alternatives: The Challenge for NGOs," *World Development*, Vol. 15 (Autumn 1987).
- Durning, Alan, *How Much is Enough?* (New York: W. W. Norton for Worldwatch Institute, 1992a).
- Durning, Alan, Guardians of the Land: Indigenous Peoples and the Health of the Earth, Worldwatch Paper 112 (Washington, DC: Worldwatch Institute, December 1992b).
- Durning, Alan, "Asking how much is enough," in Worldwatch Institute, *State of the World 1991* (New York: W. W. Norton, 1991), pp. 153–169.
- Durning, Alan, Poverty and Environment: Reversing the Downward Spiral, Worldwatch Paper 92 (Washington, DC: Worldwatch Institute, November 1989a).
- Durning, Alan, Action at the Grassroots: Fighting Poverty and Environmental Decline, Worldwatch Paper 88

- (Washington, DC: Worldwatch Institute, January 1989b).
- Ekins, Paul, A New World Order: Grassroots Movements for Global Change (London: Routledge, 1992).
- Faber, Daniel, "The ecological crisis of Latin America: A theoretical introduction," *Latin American Perspectives*, Vol. 19, No. 1 (1992), pp. 3-16.
- Falk, Richard, Explorations at the Edge of Time: The Prospects for World Order (Philadelphia: Temple University Press, 1992).
- Fay, Chip (Ed.), Our Threatened Heritage: The Transcript, Recommendations, and Papers of the Solidarity Seminar on the Environment (Manila: Solidaridad Publishing House, 1989).
- Fisher, Julie, Sustainable Development and the Nongovernmental Movement in the Third World (Westport, CT: Praeger, 1993).
- Gamalinda, Eric (Ed.), Saving the Earth: The Philippine Experience (Manila: Philippine Center for Investigative Journalism, 1991).
- Gaspar, Karl, A People's Option: The Struggle for Creation (Quezon City, Philippines: Claretian Publications, 1990).
- Gaspar, Karl, "Letter from the mountains" (San Fernando, Bukidnon, Philippines: July 15, 1988).
- Goodland, Robert, Herman Daly, and Salal El Serafy (Eds.), Environmentally Sustainable Economic Development: Building on Brundtland, Environment Working Paper No. 46, Environment Department (Washington, DC: World Bank, July 1991).
- Grossman, Gene M., and Alan B. Krueger, Environmental Implications of a North American Free Trade Agreement Discussion Papers in Economics, Discussion Paper No. 158 (Princeton, NJ: Woodrow Wilson School, Princeton University, November 1991).
- Gupta, Avijit, Ecology and Development in the Third World (New York: Routledge, 1988).
- Gurr, Ted, Why Men Rebel (Princeton, NJ: Princeton University Press, 1970).
- Hisham, Mohamed Ahmed, et al., Whose Trees? A People's View of Forestry Aid (London: Panos Institute, 1991).
- Jabla, Jun, Defending the Forests: A Case Study of San Fernando, Bukidnon, Philippines (Davao City, Philippines: Kinaiyahan Foundation, 1990).
- Kerkvliet, Benedict J., Everyday Politics in the Philippines: Class and Status Relations in a Central Luzon Village (Berkeley: University of California Press, 1990).
- Korten, David, "Sustainable development," World Policy Journal, Vol. 9, No. 1 (Winter 1991–92), pp. 158– 190
- Korten, David, Getting to the 21st Century: Voluntary Action and the Global Agenda (West Hartford: Kumarian Press, 1990).
- Korten, Frances, The High Costs of Environmental Loans, Analysis from the East-West Center No. 7 (Honolulu: East-West Center, September 1993), pp. 1-8.
- Kothari, Smithu, and Pramod Parajuli, "No nature without social justice: A plea for cultural and ecological pluralism in India," Unpublished manuscript (Delhi: Lokayan, 1992).
- Kummer, David, "Deforestation in the post-war Philippines," Ph.D. dissertation (Boston: Boston University, 1990).
- La Vina, Antonio G. M. (Ed.), Law and Ecology: A

- Compilation of Philippine Laws and International Documents Pertaining to Ecology (Manila: Legal Rights and Natural Resources Center, 1991).
- Lara, Francisco, Jr., and Horacio Morales, Jr., "The peasant movement and the challenge of democratisation in the Philippines," *Journal of Development Studies*, Vol. 26, No. 4 (July 1990), pp. 143–162.
- Lele, Sharachchandra M., "Sustainable development: A critical review," *World Development*, Vol. 19, No. 6 (1991), pp. 607-621.
- Leonard, H. Jeffrey (Ed.), Environment and the Poor: Development Strategies for a Common Agenda (New Brunswick NJ: Transaction Books for the Overseas Development Council, 1989).
- Lynch, Owen J., Jr., "Colonial legacies in a fragile republic: A history of Philippine land law and state formation," Ph.D. dissertation (New Haven: Yale University Law School, 1991).
- Lynch, Owen J., Jr., and Kirk Talbott, "Legal responses to the Philippine deforestation crisis," New York University Journal of International Law and Politics, Vol. 20, No. 3 (Spring 1988), pp. 679–713.
- McDonagh, Sean, S. S. C., The Greening of the Church (Maryknoll, NY: Orbis Books, 1990).
- Meadows, Donella, Dennis Meadows, and Jorgen Randers, Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future (Post Mills, VT: Chelsea Green Publishing Company, 1992).
- Mellor, John, "The intertwining of environmental problems and poverty," *Environment*, Vol. 30, No. 9 (November 1988), pp. 8–30.
- Mendes, Chico, with Tony Gross, Fight for the Forest: Chico Mendes in His Own Words (London: Latin America Bureau, 1989).
- Millikan, Brent H., "Tropical deforestation, land degradation, and society: Lessons from Rondonia, Brazil," *Latin American Perspectives*, Vol. 19, No. 1 (1992), pp. 45–72.
- Moody, Roger (Ed.), The Indigenous Voice: Visions & Realities, Vols. I & II (Atlantic Highlands, NJ: Zed Press, 1988).
- O'Connor, James, "Uneven and combined development and ecological crisis: A theoretical introduction," *Race and Class*, Vol. 30, No. 3 (1989), pp. 1–13.
- O'Connor, James, "Capitalism, nature, socialism: A theoretical introduction," *Capitalism, Nature, Socialism: A Journal of Socialist Ecology*, Vol. 1 (Fall 1988), pp. 11–38
- Peluso, Nancy Lee, Rich Forests, Poor People: Resource Control and Resistance in Java (Berkeley: University of California Press, 1992).
- Poffenberger, Mark (Ed.), Keepers of the Forest: Land Management Alternatives in Southeast Asia (West Hartford, CT: Kumarian Press, 1990).

- Porter, Gareth, with Delfin Ganapin, Jr., Resources, Population, and the Philippines' Future: A Case Study, WRI Paper No. 4 (Washington, DC: World Resources Institute, October 1988).
- Redclift, Michael, Sustainable Development: Exploring the Contradictions (New York: Methuen, 1987).
- Redclift, Michael, Development and the Environmental Crisis: Red or Green Alternatives? (New York: Methuen, 1984).
- Rich, Bruce, Mortgaging the Earth: The World Bank, Environmental Impoverishment, and the Crisis of Development (Boston: Beacon Press, 1994).
- Rush, James, The Last Tree: Reclaiming the Environment in Tropical Asia (New York: The Asia Society, 1991).
- Scott, James C., Domination and the Arts of Resistance: Hidden Transcripts (New Haven, CT: Yale University Press, 1990).
- Scott, James C., Weapons of the Weak: Everyday Forms of Resistance (New Haven, CT: Yale University Press, 1985).
- Scott, James C., The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia (New Haven: Yale University Press, 1976).
- "Seminar explores links between macro policy and the environment," *IMF Survey*, Vol. 22, No. 12 (June 14, 1993), pp. 177, 187–192.
- Shiva, Vandana, "Real versus pseudo Greens in the new politics," *Third World Network Features*, No. 827/91 (1991), pp. 1–4.
- Stephen, Lynn, "Women in Mexico's popular movements: Survival strategies against ecological and economic impoverishment," *Latin American Perspectives*, Vol. 19, No. 1 (Winter 1992), pp. 73–96.
- Thrupp, Lori Ann, "Environmental initiatives in Costa Rica: A political ecology perspective," *Society and Natural Resources*, Vol. 3 (1990), pp. 243–256.
- United Nations Development Program, Human Development Report 1990 (New York: Oxford University Press, 1990).
- Vitug, Marites Danguilan, Power from the Forest: The Politics of Logging (Manila: Philippine Center for Investigative Journalism, 1993).
- "Whose common future," *The Ecologist*, Vol. 22, No. 4 (July/August 1992), pp. 122–210.
- World Bank, World Development Report 1992 (New York: Oxford University Press, 1992).
- World Bank, "Issues in poverty and environment," Environment Bulletin, Vol. 1, No. 2 (March/April 1989), pp. 4–5.
- World Commission on Environment and Development, Our Common Future (New York: Oxford University Press, 1987).