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The High Costs of Environmental Loans

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SUMMARY With environmental problems and hard currency shortages increasing across Asia, many are promoting a joint solution: massive lending by multilateral development banks for environmental projects. The banks have responded with a flood of assistance. In the Philippines alone, environmental lending has grown from $60 to $731 million dollars in 15 years. One such effort was a "showcase" loan by the Asian Development Bank in 1988 for Philippines forestry projects. Once blanketed with rich forests, the country's now degraded forest lands cause soil erosion, loss of biodiversity and dislocation of indigenous people. The ADB loan was a massive and innovative response. However, the outcome of the project—including waste and corruption, the failure to ease foreign exchange problems and possible exacerbation of environmental problems—raises serious doubts about the approach. In contrast, smaller-scale assistance based on alternative models shows promise for being economically more sound and more beneficial to the environment.

Are large loans a happy solution to the dual environmental and financial crises?

At the 1992 U.N. Conference on the Environment and Development (The Earth Summit) in Rio de Janeiro, world leaders called for massive financing increases for environmentally oriented projects. Among the institutions asked to fund such projects were the multilateral development banks.

The banks are natural institutions to which to turn. Together, the World Bank, the Asian Development Bank (ADB), the African Development Bank and the Interamerican Development Bank represent the largest source of development funds in the world. Their programs are well established. And because the foreign exchange provided by their loans helps indebted countries temporarily meet their balance-of-payments needs, it would seem that environmental and financial problems could be addressed simultaneously.

The development banks have, in fact, already taken on the environmental mantle. For example, in 1991 the World Bank loaned $1.6 billion for projects with primarily environmental objectives, a four-fold increase over the 1990 total; and in 1992 it began administering the new $1.3 billion Global Environmental Facility.

But do environmental loans actually represent a happy solution to the indebted countries' dual environmental and financial crises? This article will examine the question in terms of environmental loans to the Philippines.

In the Philippines, as in many other developing countries, environmental loans have focused on the forestry sector. Forests harbor the richest biodiversity in the world; they absorb carbon dioxide (or release it if burned), which influences global warming; they help temper flooding in the wet season and regenerate underground aquifers for use in the dry season. Forests provide timber and other commercial products, settings for recreational activities, and food and medicinals—many of them for indigenous peoples whose cultures are threatened with extinction.

The dramatic rise in forestry assistance in the Philippines between 1988 and 1992 exemplifies the international response to the worldwide environmental crisis. In that period the ADB, the World Bank and the Japanese government approved Philippine loans totaling $731 million. In the previous nine years, loan approvals had totaled only $60 million. The intent of the new projects was to address environmental needs, but their size was driven less by carefully targeted opportunities than by the Philippines' need for hard currency. Between 1975 and 1988, the country's foreign debt had risen from $5 to $28 billion. By 1988 payments on the debt were $3.3 billion a year—35 percent of the foreign exchange earned by exports. To make debt payments and maintain imports, the Philippines needed foreign exchange from other sources. The International Monetary Fund urged international agencies to provide loans and grants to help fill the gap. The hard currency could be used for imports, since many project-related expenses were local and could be covered with Philippine currency.

The U.S. government provided significant assistance in grant form. The World Bank, the ADB and Japan provided their assistance as loans, which ultimately had to be repaid in foreign exchange. The hope was that Philippine exports would eventually surpass imports to enable repayment.

However, the huge environmental projects overwhelmed the agencies responsible for carrying them out. And the need to repay loans in foreign exchange created pressures to exploit natural resources in unsustainable ways. These issues raise questions about the value of such loans in solving the Philippines' or the world's environmental crisis.

The Environmental Loan Explosion

Philippines Forestry Sector Loans

1979–1987	1988–1992
$26 million - various sources	$277 million (four ADB forestry loans)
$34 million - ADB forestry loan	$234 million (World Bank loan)
	$220 million (Japanese government supplements to ADB and World Bank loans)
Totals: $60 million	$731 million

Losing the Forests

In 1934 rich tropical forests blanketed half the Philippines, but by 1990 only 20 percent had any significant forest cover and a mere 3 percent had virgin forests. Two major factors lie behind Philippine forest destruction—massive logging and conversion of forest land to agricultural uses. Logging companies had bulldozed roads through virgin forests extracting timber and degrading the area. Lowland migrants had followed the logging roads, burning debris and establishing farms, thus preventing the growth of secondary forests.

The cost of such forest destruction has been immense. Soil erosion alone costs the country over a half-billion dollars a year, primarily through loss of productive land, damage to irrigation systems and coastal fisheries and loss of potential hydroelectric power. The land's diminished absorptive capacity leads to floods in the monsoon season and droughts in the dry season, forest biodiversity is dropping and indigenous people find their way of life threatened.

Under the regime of Ferdinand Marcos, many donors were reluctant to provide forestry sector assistance, partly because of corruption in the Bureau of Forest Development, which had jurisdiction over the nation's 15 million hectares (37 million acres) of public forest land.

A dramatic response. With the rise of Corazon Aquino in 1986 and her appointment in 1987 of human rights lawyer Fulgencio Factoran as secretary of the Department of Environment and Natural Resources (DENR), significant restructuring began. The functions of the Bureau of Forest Development were integrated into the DENR, and new managers encouraged central office staff to move to the field. They canceled the timber licenses of irresponsible concessionaires and granted access rights and assistance to occupants of forest lands.

These changes, combined with worldwide calls for environmentally oriented foreign aid, resulted in an avalanche of loans, grants and technical assistance to the department. Prior to 1988 the Bureau of Forest Development had been the lead agency on only one major loan—a 1983 $34 million ADB loan for forestry development in Ilocos Norte. The bureau had had a shared or subordinate role on small parts of eight other loans, implementing activities totaling $26 million between 1979 and 1988. In contrast, from 1988 through 1992 the ADB made four major forestry sector loans totaling $277 million, the World Bank made one $234 million loan and the Japanese government contributed $100 million to the World Bank loan and $120 million to one of the ADB loans. In addition the U.S. government provided a $125 million grant.

Would the massive funding help? An answer must include an examination of such funding's direct and indirect effects. Determining the direct effects of these large forestry projects is difficult because of their long gestation periods, dispersed and remote locations and complex objectives. However, some initial studies allow a preliminary assessment.

The Showcase Loan: Direct Effects

The ADB's Forestry Sector Program Loan, approved in June 1988, was originally projected at $120 million but rose to $240 million with a $120 million contribution from the Japanese government's Overseas Economic Cooperation Fund (OECF). The loan was the largest forestry loan in bank history, and bank staff considered it a showcase for ADB's expanded plans for environmental lending. But an examination of the direct effects of the loan reveals numerous problems.

Reforestation activities. The loan projected reforestation of some 358,000 hectares over five years—71,600 a year. With the cost of reforesting the entire 10 million hectares of degraded Philippines forest lands estimated at $7.8 billion, the loan represented a first step on a long and expensive journey.

The project was not the Philippines' first reforestation effort. From 1916 until 1987, the Bureau of Forest Development had targeted reforestation on one million hectares and actually replanted some 272,000 hectares. But a 1987

study revealed in those 71 years only about 70,000 hectares had been successfully reforested—less than the ADB now projected for each year.

What gave the agency and the lender hope for the new efforts was the concept of privatization. Reforestation had previously been carried out directly by the Bureau of Forest Development, which hired laborers, often local residents. Under the ADB loan, most reforestation would be done through performance-based three-year contracts with a wide variety of groups; the DENR hoped many environmentally oriented nongovernmental organizations (NGOs) would take contracts. Private groups, including NGOs, would be asked to evaluate the survival of the trees—more accurately, it was hoped, than the department would.

All hoped privatizing reforestation would be the key to success

Once the three-year contracts were over, the trees would belong to the government. But to ensure that some party would have a stake in their survival, the government and the ADB agreed that second, longer-term contracts should give the holders the right to harvest the trees at maturity and share the profits with the agency.

By mid-1988 the DENR had not yet determined the nature of such long-term contracts. Nevertheless, the ADB went ahead with the loan, and agency staff made contracts. Guidelines regarding the longer-term arrangements were not issued until late in 1990. Thus, the contractors generally thought more in terms of immediate profit than benefits from long-term management.

The program progressed rapidly. Between September 1988 and December 1991 some 20,000 contracts were made, covering approximately 225,000 hectares. Sixty-two percent was covered through contracts with organizations—called "community contracts" regardless of whether the organization was based in the community. Nearly all the rest was contracted with nearby families.

Most initial assessments of the project were glowing. The DENR boasted it was reforesting even faster than the nation's estimated deforestation rate of 90,000 hectares per year, and at rates even higher than earlier projections. After only one year's implementation, the ADB began preparations for a second forestry loan, projected at some $400 million.

Others, however, were less sanguine. Many developmental NGOs were particularly alarmed by the number of "fly-by-night" NGOs formed by individuals who simply wanted reforestation contracts and had no commitment to poverty alleviation or environmental restoration.

These concerns led to three studies, one by the Asian NGO Coalition (ANGOC), a second by the Upland NGO Assistance Committee (UNAC) and a third by a Michigan State University doctoral student. Each study examined sites where reforestation was being undertaken in 1991 by community contractors, including both respected NGOs and organizations formed specifically to obtain the contract. The ANGOC study also examined family contracts. All of the studies analyzed the relationship between contractors and local residents, the likely environmental impacts of the program and the effect of the program on the DENR. All had remarkably similar findings. And although the results were preliminary, the studies and related advocacy work led to major revisions of the program's guidelines and a significant cut in the amount of the planned follow-on loan.

Contractors vs. local residents. With an estimated 13 to 18 million people inhabiting the Philippine uplands, there were few reforestation sites without residential communities nearby. The views of local residents are of great importance to reforestation efforts. Throughout Asia, including in the Philippines, residents have burned or cut down government-planted tree plantations—to return the land to farm or pasture use, to prolong the reforestation project and the employment it generates or simply out of negligence.

Without high local commitment, the prognosis for reforested trees' long-term survival is poor. The three studies found such commitment in only a minority of sites, most notably where there was the highest involvement of local people—family contracts, contracts with local organizations or with NGOs that promoted local participation.

Many hastily formed "community contractors" were based in provincial capitals and treated the local people as hired labor. As a result local

residents had confused, short-term views of the reforestation activity. They were pleased to receive wages but objected to the location or type of trees planted. In a number of cases when wages were delayed, they burned the trees.

Environmental impact. The program's ability to meet its environmental objectives rested on two factors: the survival of the trees and their effects on soil and water conservation.

According to the UNAC study, most survival rates reported within the first three months were above 80 percent, but those reported from three months to one year after planting were between 50 and 76 percent. More troubling was the frequent observation that actual survival rates were far lower. And the contractors' unequal relationship with local people set the stage for the same problems encountered in earlier government projects, which had achieved only a 26 percent success rate.

Throughout Asia residents have destroyed government tree plantations

Another problem was that the vast majority of the trees planted were of the *gmelina arborea* species. Guidelines encouraged the use of multiple species, but DENR field personnel had *gmelina* seedlings and had no time to develop others. *Gmelina* grows fast and is useful for producing low-grade wood and pulp for paper making. But it could live only about 15 years on the marginal soils in reforestation areas. Also, it tended to inhibit undergrowth, reducing its effect on soil erosion. Moreover, the wide-spread use of a single species increased the threat of pest and disease infestation.

Given these problems, some analysts estimated that the disruption of grasslands involved in planting the trees would cause more soil loss than the surviving trees would prevent.

Effect on the agency. One effect of the program's sheer magnitude was sloppy work. Personnel sometimes designated planting areas that were assigned to other official uses. Contractors received inadequate training and were often paid late.

A second effect was the corruption encouraged by the huge sums. The studies identified contracts with phantom parties, contractors who were not paid the amounts stipulated on their receipts and others who were never paid at all.

These data, while only preliminary, raised considerable doubts about the success of this "showcase" environmental loan. The program's many attractive concepts—drawing on NGOs and local communities, granting local people long-term use rights to land, using performance-based criteria for payment and employing outside parties to assess results—often were distorted or simply ignored in actual implementation.

The loan's huge size forced unrealistic targets. The tendency to turn to "fly-by-night" contractors, the lack of community preparation, the reliance on one short-lived tree species, the lack of contractor training, the late payments and the corruption all could be partially attributed to the fact that the program's demands exceeded the capacity of the agency.

Lessons. Fortunately, some lessons and program redirection emerged from the first three years of program implementation. The ANGOC study prompted the ADB to reevaluate its projected $400 million loan and reduce it to $100 million. The UNAC study, whose findings confirmed concerns raised by many of the more thoughtful DENR personnel, resulted in a UNAC-DENR team revamping the program implementing guidelines. Under the new guidelines, issued in July 1992, contracts were to be made only with local residents, with long-term use agreements built in from the beginning. Contracts with NGOs would be only for support services. It was hoped that such arrangements would improve the longevity of the trees, promote more use of varied and indigenous species and discourage the development of bogus NGOs. But the lessons were learned at great cost, when they might have been gained from a smaller-scale program.

The costs. The reforestation contracts cost P20,000 ($740) per hectare. Were such high costs necessary?

Every component of the program, from raising seedlings to planting and maintaining the trees, was included in the costs of the three-year contract. It was assumed that the implementers would not contribute on a voluntary basis

(probably correct, as most contractors did not reside in the area) and that reforestation had to involve the deliberate planting of every tree, rather than making use of naturally occurring species.

Ironically, the DENR had had considerable experience with a far less expensive institutional approach that provided land rights and other assistance to local farmers, so they could benefit from conservation-oriented practices.

Ironically, the agency had experience with a far less expensive approach

Since 1982 through its social forestry program, the DENR had been giving 25-year stewardship contracts to families and communities farming forest lands, helping them form community organizations and providing them with technical assistance in agroforestry, soil and water conservation and tree planting. The cost per hectare of land actually developed with such methods was only P7,100 ($273).

In 1990 the DENR began to develop another promising approach—enlisting help of tribal peoples by recognizing their ancestral claims. In mid-1992 the department estimated that to delineate boundaries of 198,000 hectares of ancestral land over the next five years would cost P82 million or P414 ($16) per hectare, only 2 percent of the cost of the contract reforestation program.

Policy change. The ADB loan was considered a "Sector Program" loan. "Sector" meant loan funds would focus on a particular part of the economy, in this case forestry; "program" was a term often used with loans designed to affect policies.

Conditions for the second release of funds were activities rather than specific policies. Most were well under way at the DENR even without the loan. The most obvious policy effect of the loan was to promote contract reforestation as one of the principal activities of the department. But in view of the program's costs and implementation problems, the value of this policy influence was questionable.

Showcase Loan: Indirect Effects

Provision of hard currency. The Philippines' need for foreign exchange was one of the forces driving the huge size of the loan. But was meeting that need compatible with the loan's environmental goals? For instance, exacerbating the country's foreign exchange shortage was its highly oil-inefficient economy, which boasted the lowest price of petroleum in the region (lower even than oil-producing Indonesia). Foreign exchange was also used for large quantities of imported luxury goods.

Repayment. Although the loan was made on relatively soft terms, it had to be repaid in full, with interest, in foreign exchange (see Note). The *gmelina* trees would help provide wood for domestic needs but were not expected to generate export earnings. What other sectors might generate foreign exchange and what might be their environmental effects?

Throughout the Marcos years, the need for foreign exchange was hailed as a reason for the rapid exploitation of the forests. This contributed to the denudation that the country was now trying to repair—with loans that generated further need for foreign exchange.

Mining, another lucrative foreign exchange earner in the Philippines, was destroying the areas mined and also causing substantial soil and water contamination downstream.

The heavily subsidized prawn farming industry was also harming the environment: prawn farmers cut down mangrove trees, which diminished natural fish stocks and exposed shorelines to typhoons; they mined fresh water aquifers with powerful pumps, reducing fresh water supplies and sometimes causing saltwater intrusion; and some infused their ponds with pesticides, then pumped the contaminated waters into the open sea.

Other sources of foreign exchange, such as electronic and garment manufactures and coconut and sugar exports, were not so destructive to the environment; but they were inadequate to fill the country's foreign exchange needs. By 1991 the annual trade deficit had mushroomed to $3.9 billion from $1.1 billion only three years before, making it likely that the government would continue promoting its environmentally damaging export industries.

Alternative Approaches

The waste and corruption created by the enormous size of the Forestry Sector Program Loan reveal the dangers of combining the fiscal and environmental agendas.

Other donors in the Philippines had alternative responses to the twin pressures of environmental and foreign exchange needs. The World Bank's 1991 Environment and Natural Resource Sector Adjustment Loan (so called because it required policy changes in the forestry sector) separated the huge size of the loan from its implementational requirements. The loan totaled $324 million, including a $100 million contribution from Japan. But the portion allocated to the Department of Environment and Natural Resources for implementational activities was only $58 million. The remainder went directly to the Philippines' central treasury.

However, the World Bank's loan still had to be repaid in full, in foreign exchange, though part was exempted from interest (see Note). Thus, like the ADB loan, it led to pressures for exports, many of which would have damaging environmental consequences, and it could provide no guarantees that the foreign exchange would be used for environmentally or socially beneficial imports.

Grants do not create pressure to exploit natural resources

In 1989 the U.S. government's Agency for International Development pursued another alternative, providing $125 million for its Natural Resources Management Project. Because the funds were made as a grant, they did not generate pressures for natural resource exploitation needed for loan repayment. Like the World Bank, USAID provided a major portion of the assistance—$75 million—directly to the Central Bank, allocating only $25 million to the DENR for program implementation.

The remaining $25 million funded an important institutional innovation—an environmental foundation. The funds were first used to purchase Philippine debt. The Central Bank, in exchange for the debt buy-back, agreed to release pesos at a highly favorable exchange rate. These funds endowed a new Foundation for the Philippine Environment, whose mandate was to make grants to environmentally oriented NGOs, communities and training institutions.

This arrangement had a number of advantages. First, the foundation had only modest income to disperse each year. Thus it focused on projects with high potential for success. Second, the endowment promised the foundation a long life, unlike most foreign assistance projects. Third, the foundation, formed over a three-year period with substantial public input, attracted prominent, environmentally committed board members—potentially insulating it from political pressures. While it is too early to assess the outcome, this innovative approach appears a promising way to use large foreign aid sums for environmental ends.

Conclusion

In recent years two important phenomena have influenced foreign assistance strategies. One is that with the indebtedness of developing countries at an all-time high, public development banks are scrambling to provide new loans to enable countries to repay their debts and maintain their imports. The second is the rising public concern about the world's deteriorating environmental conditions. For many leaders, the two phenomena have merged into a call for more loans for the environment.

However, funds from large loans are unlikely to be spent effectively, as illustrated by the ADB's "showcase" Forestry Sector Program Loan to the Philippines. And the loans must be repaid in foreign exchange, creating pressures for exports that often involve damaging exploitation of natural resources.

A serious international effort to assist developing countries with environmental problems would have several components. It would:

- Recognize that the cause of many environmental problems are social and institutional and not readily solved by large infusions of foreign funds.
- Build institutional capacities to implement low-cost, effective environmental programs and

keep assistance at levels that can be used efficiently.

- Provide assistance primarily in grant form, so as not to exacerbate indebtedness.
- Acknowledge the damaging environmental consequences of many developing country exports.
- Reduce export pressures by encouraging lower imports, less borrowing and more foreign debt relief.

The function of the multilateral banks is to make hard-currency loans for projects that can generate foreign exchange for repayment. Thus, they are ill-suited to solving environmental problems. Heeding calls for the banks to provide massive environmental loans is likely to accelerate the very damage their proponents intend to reverse.

Note: The ADB portion of the loan was divided into two parts. Half ($60 million) was drawn from the bank's regular funds with interest set at the bank's standard variable rate—between 6 and 7 percent in 1992. The other half of the loan came from a special "soft loan" fund called the Asian Development Fund, which charged no interest, but had a 1 percent commitment fee and a 10-year grace period before repayment began. The OECF portion of the loan ($120 million) set interest at 2.7 percent and provided a seven-year grace period with 25 years to repay.

The World Bank's 1991 Environment and Natural Resource Sector Adjustment Loan, like the ADB loan, was drawn from two different funding sources. $168 million came from regular funds and carried the standard variable interest rate, which in August 1993 was 7.8 percent. $66 million was drawn from International Development Association funds, with a 1 percent commitment fee but no interest.

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