



Indonesia The Challenges of World Bank Involvement in Forests

Evaluation Country Case Study Series



Indonesia: The Challenges of World Bank Involvement in Forests



The World Bank



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The Challenges of World Bank Involvement in Forests

Evaluation Country Case Study Series

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Foreword

This case study is one of six evaluations of the implementation of the World Bank's 1991 Forest Strategy. This and the other cases (Brazil, Cameroon, China, Costa Rica, and India) complement a review of the entire set of lending and nonlending activities of the World Bank Group (IBRD, IDA, IFC, and MIGA) and the Global Environment Facility (GEF) that are pertinent to the Bank Group's implementation of the forest strategy. Together these constitute inputs into a World Bank Operations Evaluation Department (OED) synthesis report entitled *The World Bank's 1991 Forest Strategy and Its Implementation*. This forest strategy evaluation was carried out under the overall direction of Uma Lele.

The purpose of each of the six country studies has been to understand the implementation of the 1991 Forest Strategy in Bank operations and to obtain the views of the various stakeholders in the country about the involvement of the Bank. In doing so, the study team has not only examined the Bank's forest program but also endeavored to place the Bank's activities in the broader context of what the country and other donors have been doing in the forest sector. Therefore, each country study examined the overall development of the country's forest sector. While this naturally includes environmental impacts on forests, such as degradation, biodiversity loss, and deforestation, it also encompasses the economic uses of forests, including the management of forest resources for production, the role of forest development in poverty alleviation, and the impacts of forest research and development.

The evaluation of the Bank's performance in these studies, as always in OED studies, seeks to judge whether the Bank has "done the right things" and "done things right." Here, OED also seeks to judge whether the Bank has lived up to the commitments made in its 1991 Forest Strategy. The case studies do this by examining how the Bank, using the various lending and nonlending instruments at its command, has interacted with the sector's development processes, with other donors, and with the broader government objectives of economic growth, poverty alleviation, and environmental sustainability. Thus, the studies focus on policy in the post-1991 period, but they also recognize that the Bank does not operate in isolation from its historical interactions with a country and its needs. These interactions include the Country Assistance Strategies or their predecessors, Economic and Sector Work, as well as all investments in all sectors and all policy dialogue that is pertinent to the Bank's actions and their outcomes in the forest sector. Together, these activities constitute the Bank's implementation of its forest strategy in a country.

The important questions these country studies address are as follows:

- How have the forces of development effected change in the country's forest sector?
- Did the Bank's 1991 Forest Strategy make a difference to its forest strategy in the country, or was this strategy largely a result of the Bank's historical relationship with the country, the needs articulated by the government, or a combination of both?
- Regardless of how the Bank's forest sector strategy evolved, how consistent was it with the Bank's 1991 Forest Strategy?
- How consistent was the country's own forest policy/strategy with the Bank's 1991 Forest Strategy?
- Was the Bank's overall and forest sector strategy in the country relevant to the country's needs in the forest sector, as identified by the country?
- Were the Bank's overall and forest sector activities effective from the viewpoint of the intentions of its 1991 Forest Strategy?
- Were the Bank's activities efficient?
- Did the Bank's activities achieve policy and institutional development pertinent to forest sector management?
- Are the Bank's impacts likely to be sustainable?

- What impact has the Bank’s overall and forest sector strategy for the country had on forest cover and quality, poverty alleviation, and other key issues? What are the prospects for future Bank-country interactions in the forest sector, and for outcomes in the sector?

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The report was produced as part of the OEDPK publication series by a team under the direction of Elizabeth Campbell-Pagé (Task Manager). Caroline McEuen (editor), Kathy Strauss and Aichin Lim Jones (graphics and layout), Diana Qualls (editorial assistant), and Juicy Qureishi-Huq (administrative assistant) comprise the publishing team.



Acronyms

AMDAL	Environmental Procedure Law 29
APKI	Pulp and Paper Industry Association
APKINDO	Producers' Association for Plywood
BUMN	Forest concession rights to private enterprises or special state-owned enterprises (<i>Badan Usaha Milik Negara</i>)
CAR	Country Assistance Review
CAS	Country Assistance Strategy
DR	Tree reforestation fee (<i>Dana Reboisasi</i>)
EIA	Environmental impact assessment
ERR	Economic rate of return
ESW	Economic and sector work
FAO	Food and Agriculture Organization
FRR	Financial rate of return; forest resource royalty
GDP	Gross domestic product
GEF	Global Environment Facility
GNP	Gross national product
HPH	Forest concession rights (<i>Hak Pengusahaan Hutan</i>)
HTI	Industrial forest/timber plantation concessions (<i>Hutan Tanaman Industri</i>)
IBRD	International Bank for Reconstruction and Development
ICDP	Integrated Conservation Development Program

ICR	Implementation completion report
IDA	International Development Association
IFC	International Finance Corporation
IHH	Annual log royalty (<i>Juran Hasil Hutan</i>)
IHPH	Annual area-based concession fee (<i>Juran Hak Pengusahaan Hutan</i>)
IPK	Wood utilization permit (<i>Izin Pemanfaatan Kayu</i>)
IRR	Internal rate of return
ISA	Producers' Association for Molding
MIGA	Multilateral Investment Guarantee Agency
MOFEC	Ministry of Forestry and Estate Crops
NGO	Nongovernmental organization
NRM	Natural Resource Management
NTFP	Non-timber forest products
OED	Operations Evaluation Department
OP	Operational policy
PAD	Project appraisal document
PAR	Performance audit report
PAP	Project-affected peoples
PBB	Property tax (<i>Pajak Bumi dan Bangunan</i>)
PIR	Smallholder estate support (<i>Perkebunan Inti Rakyat</i>)
PPPB	Research and Development Center for Biology (<i>Pusat Penelitian dan Pengembangan Biologi</i>)
PRSL	Policy Reform Support Loan
PSR	Project status report
PTP	State-owned oil-palm estate companies (<i>Perseroan Terbatas Perkebunan</i>)
QAG	Quality assurance group
Rp	Rupiah
SAR	Staff appraisal report
SFM	Sustainable forest management
TPTI	Indonesian selective logging and planting system (<i>Tebang Pilih Tanam Indonesia</i>)
UNDP	United Nations Development Program
US\$M	U.S. dollar millions
WWF	World Wide Fund for Nature



Summary

Indonesia is endowed with the second largest expanse of tropical moist forests in the world. Officially, about 78 percent of its land mass, or 147 million of its 189 million hectares, is classified as forestland. The actual extent of forest cover remaining is not known for lack of reliable data, but is believed to be somewhere between 92 and 112 million hectares. These forests are important to Indonesia for their economic and social significance and to the global community for their biodiversity and as a carbon sink. With an abundant endowment, it is inevitable that some deforestation will occur in the pursuit of economic development. However, a distinction needs to be maintained between the uses of forest resources for justifiable development goals that are environmentally sustainable and socially equitable and the uses that are not.

The Government of Indonesia has exploited its natural resources in an export-led development strategy, which has resulted in a sustained and rapid rate of economic expansion lasting nearly three decades. The success in growth until the 1997 financial crises had also been accompanied by an impressive reduction of poverty from 60 percent to 11 percent of the population between 1970 and 1996. Despite these successes, however, some fundamental structural weaknesses have persisted as noted by OED's Country Assistance Review. These include a weak financial sector, a fragile social sector and governance, and corruption. In few sectors are these issues more relevant than in the forest sector. The financial crisis and the environmentally devastating forest fires of 1997/98 have amply demonstrated the impact of these weaknesses.

Forests and the Forest Sector

Forests have been an important contributor to growth, establishing Indonesia as a world leader in the export of tropical forest products. The gains in economic growth, however, have come at a significant environmental cost: sustained and rapid destruction of the natural forests. According to recent research, the annual rate of deforestation has now reached unprecedented levels of over 1.5 million hectares per year. A major source of deforestation has been large-scale commercial interests. Not only has the use of forest resources been unsustainable, the distribution of the benefits has been highly inequitable. Since the inception of the New Order Regime in 1967, the Indonesian forest policy has subordinated the traditional rights of indigenous forest dwellers and communities dependent on forests for their livelihoods. The denial of access to forest resources has resulted in conflict and created one of the most serious social problems facing Indonesia at present.

Commercial logging has played a leading role in deforestation and forest degradation in Indonesia. The forest extraction activities and wood processing industries have been dominated by the same few conglomerates. Timber concessions have been used for political patronage. The industrial interests, in particular the APKINDO plywood marketing cartel, have had a major influence over the policy and governance in the sector. Forest products were dominated by raw timber exports until the early 1980s. Since then, the dominant industry has been plywood. The market structure is rapidly shifting toward the pulp and paper industry. The government has actively promoted downstream or "value-added" processing industry since the early 1980s through a set of incentives that generated large economic rents for the license holders. Underpriced logs, low rent capture, and an officially sanctioned aggressive marketing cartel have made Indonesia a world leader in tropical plywood. The bulk of pulp and paper output has so far been marketed domestically, but exports are growing at a rapid pace. At the same time, rules and regulations have been poorly enforced, leading to degradation and deforestation of forest areas.

Timber and tree-crop plantations have grown rapidly since the early 1980s. Timber plantation concessions have been promoted by the government, through subsidies and preferential regulations, in anticipation of the growing demand for industrial wood, primarily for the pulp and paper industry. However, because of inappropriate incentives (subsidies, permission to clear cut logged-over forests, and unattractiveness of the long-term investment in timber because of low log prices and

pervasive illegal logging) natural forests have been degraded, while the area actually planted has been well below the area allocated. At the same time, significant investments have been made in pulp and paper industrial capacity, which has significantly increased the demand on natural forests to meet their growing raw material requirements. The growth of tree-crop plantations has also been rapid, particularly for oil palm, in response to strong financial incentives. These trends have added substantial pressures on the forests, and the incentives have increased in the aftermath of the recent financial crisis.

The sector is plagued by governance problems, which have made the official forest policy de facto ineffective. This is well demonstrated by the events following the 1997/98 forest fires. Of the 176 companies found responsible for starting the fires to clear land for plantations, including 133 oil palm companies, virtually no action has been taken against any company. Illegal logging is pervasive. Almost all domestic consumption of logs is currently met from illegal logging, with official concessions accounting only for processed exports. The lack of implementation of rules and regulations governing concession contracts provides a strong incentive for the concession holders not to adopt sustainable practices. Poor enforcement of laws, often in collusion with officials, has resulted in illegal logging levels that now equal legal logging. The timber plantation concession system is ironically leading to degradation of forest areas rather than regenerating them, while unclear and overlapping forest boundaries have resulted in granting concessions and conversion rights in areas meant to be protected and conserved.

Community participation in forest management is just starting, and new approaches are being experimented with. Recent experience in Indonesia is similar to the OED case studies on Brazil and China, that devolution and decentralization by themselves are no guarantee for reducing the rate of deforestation. Some form of resource transfer or compensation may well be needed to induce local communities and regional governments to retain their forests intact. Certification of wood products is also in very early stages, but it is unlikely to be very effective in the near future for lack of institutional capacity and outstanding governance issues.

The Bank's Involvement

The Bank's 1991 Forest Strategy stressed a multisectoral approach. Although the involvement of the Bank in the forest sector has a relatively short history, starting in 1988, the impact of Bank projects dates

back much farther. Accordingly, this review has looked at the Bank's projects in the forest sector, as well as projects with forest sector components, projects with potential impacts on forests, and the Bank's non-lending services.

The Bank's overall assistance strategy in the pre-1991 period was very much focused on economic growth, population growth, and poverty reduction. Even though the Bank had a forest sector policy, the impact of macroeconomic policies or the cross-sectoral impacts of other policies, such as agricultural policy, were rarely considered. For example, as part of a well-developed and highly successful poverty reduction strategy, Bank financing of the transmigration program rarely considered its impact on the forests or the indigenous peoples. The rationale for this policy was poverty reduction for Java, but serious social conflicts between the transmigrants and the poor Indonesian in the outer islands were not anticipated. This reflected the general lack of attention to these issues at the time, but as past OED reviews of the transmigration programs have pointed out, these programs have had serious and probably irreversible impacts on the forests and indigenous people.

After 1991, the Bank had a reasonably well developed sectoral strategy, calling for wide ranging reforms in the forest sector. However, even though environmental concerns were raised in the in the Bank's Country Assistance Strategy (CAS), forest sector issues were ignored until 1995. The Bank was reluctant to pursue the sensitive issues of policy and institutional reform in the forest sector until the financial crisis, with the country department not willing to jeopardize its country relations. Cross-sectoral impacts continue to be a problem, as does the failure to adequately integrate the forest dwelling poor fully into the Bank's poverty reduction strategy and CAS.

Even the relatively brief history of the Bank's involvement in the forest sector has three distinct phases: the lending phase (1988–94); the no-lending phase (1995–97); and the adjustment lending phase (1997 onwards). In the late 1980s, the Bank financed two forest sector projects in Indonesia. In the post-1991 period, the Bank has financed a conservation project jointly with the Global Environment Facility (GEF), tree-planting components in six other projects, and economic and sector work. The two forest projects were approved in 1988 and 1990 and were designed to complement each other. The projects were aimed at institutional development and sectoral capacity building for the long-term management of forest resources, and to reduce the pace of defor-

estation. In their intent and their design, although conceived earlier, both were consistent with the objectives of the Bank's 1991 Forest Strategy in their focus on institutional development and sectoral capacity building, conservation, and sustainable management of forest resources.

The respective project completion reports judged both projects to have successfully met narrowly defined objectives. In hindsight, however, the outcomes for sectoral planning and management of forest resources are questionable. The experience from the two projects was consistent with the experience that the Bank had with the Ministry of Forestry and Estate Crops (MOFEC) in the context of its policy dialogue. The key issues were a lack of MOFEC commitment to implement project initiatives and to carry out the institutional and policy reforms suggested by the Bank as part of a long-term development strategy for the forest sector. Two key components of the second project were dropped: the implementation of the concession management component and the construction of a research facility on the island of Irian Jaya, and over 50 percent of the loan was cancelled. In addition, MOFEC also cancelled a substantial proportion of the forest component of another project, and terminated the preparation of a larger third forest sector project, which was intended as part of a long-term involvement in the sector.

These actions marked the breakdown of sectoral dialogue between the Bank and MOFEC, starting in 1994. While the reason given by the government for terminating the lending program was its desire to replace loan funds by grants, the real reason appears to have been MOFEC's dissatisfaction with the Bank's forthright economic and sector report discussed with the government in 1993. The report called for far-reaching policy and institutional reforms. Although discussed with the government, the Bank did not officially issue the report. Nevertheless, the report detailed a number of key issues, and provided a reasonably comprehensive strategy to deal with the forest sector. It noted the tradeoff between development and conservation objectives, the political nature of the demarcation of forest boundaries, and the need to bring production forestry under control to ensure the sustainability of the forest resources. It recognized the issues of illegal logging, problems in implementation of laws and regulations, and the need to develop institutional capacity. The main proposals put forward in that report have been the basis for the Bank's subsequent policy dialogue.

Policy Advice

The focus of the Bank's reform proposals has been on economic efficiency, appropriate pricing of natural resources, equity, and environmental sustainability. The key elements of the reforms recommended by the Bank have been the removal of policy distortions and the provision of incentives to promote investments for better management of forest resources (for timber concessions and plantations). The reforms also sought to bring transparency and competitiveness in the timber and processing industries, which would reduce the economic rents flowing to the integrated conglomerates. To improve implementation and management, and overcome the constraints imposed by poor governance and corruption, the Bank strategy called for greater participation of local communities in the management and the protection of forest resources, as a precursor to the satisfactory resolution of titling and user rights issues. It proposed a consultative process to resolve tenurial conflicts and a greater role and improved incentives to provincial and local governments for managing, regenerating, and protecting forests in their jurisdiction. Many of these proposals were unacceptable to MOFEC. As a consequence, the government effectively kept the Bank out of the sector, and no progress was made even on policy dialogue between 1995 and 1998.

While some of the reform proposals have been controversial, the overall strategic direction of the Bank's sectoral advice, from the stress on economic efficiency and incentives for sustainable forest management to community participation and administrative decentralization for improved governance, appears to have been in the right directions. However, three issues need to be noted about the economic and sector work (ESW) underpinning the Bank's policy advice. These relate to the forest sector in general and to the Bank's 1991 Forest Strategy. The forest dwellers and others dependent on forests for their livelihoods are among the poorest groups. Yet the link of the forest sector issues impacting on the poor to the Bank's CAS or overall macro-policy dialogue with the government has not been adequately established. Nor, as noted earlier, have the forest-dependent poor been fully integrated into the Bank's poverty reduction strategy. The forest sector issues have gained much prominence in the past two years in the context of adjustment lending, but that has been essentially because of environmental concerns and implications for the sustainability of long-term growth.

The second issue is that cross-sectoral impacts have been inadequately considered in the Bank's ESW or CAS. The impact of agricultural in-

centives has not been considered either in the agricultural or forestry ESW. Nor has linkage been emphasized between economic growth, poverty alleviation, and the unsustainable exploitation of natural capital. For example, in the drive for diversification of exports, no effort has been expended in linking the government's policy of promoting growth in the capacity of various processing industries to the demand pressures they place on forests. As a result, the quality of growth has rarely been questioned in terms of its impact on forests or forest dwelling people. The manner in which the exploitation has taken place has not only been inequitable, but has also compromised the long-term sustainability of the economic growth based on natural capital.

The third issue is that of the economic viability of sustainable forest management, and more important, the competitiveness of sustainable forest management (SFM) vis-à-vis other uses of land. Considering that the Bank's advice has focused on SFM as its objective, the Bank has spent relatively little effort on establishing the validity of the underlying assumptions. This issue, however, is part of a more generic issue that has to do with the Bank's investment in ESW. In the Indonesian case, since 1993, the Bank has invested no resources in ESW. And while Bank staff have kept in touch with some of the emerging issues in the sector, they have not had the necessary resources to carry out an in-depth analysis of the sector and emerging trends to better inform their policy advice, for example in developing the conditionality for the adjustment lending operations.

Adjustment Lending

The adjustment lending operations following the 1997 financial crisis gave the Bank an opportunity to re-engage in the forest sector. With an increase in its leverage, the Bank has sought to resolve some longstanding issues by including conditionalities tied to changes in some forest sector policies. The first such opportunity arose in January 1998 when, at the last minute, the IMF requested the Bank for forest-related conditions to be included in its reform package to Indonesia. In part, the intent of including these reforms was to increase the government revenues and increase exports, but it was also to address issues of sectoral governance, competitiveness, and environmental impacts.

Few specific conditions could be realistically included in an already long list of conditions and, given the emergency nature of the situation, there was no time for stakeholder consultations. The Bank opted for some "stroke of the pen" policy and regulatory reforms, which it con-

sidered had a reasonable chance of being implemented and sustained. These initial conditions were, however, considered by the Bank to be part of a longer-term phased reform program. The initial IMF loan has been followed since by two policy reform support loans (PRSLs). The current Bank strategy for reforms is based on a transparent and broad-based consultative process, which is necessarily time consuming but critically necessary to address some of the complex social issues that are central to the forest sector in Indonesia.

Although the reforms have been agreed to by the government, including MOFEC, and several changes in the rules, laws, and regulations have been promulgated, the implementation of the reforms has so far been poor. In some instances, the reforms have been resisted by MOFEC, the agency responsible for implementation, either by not implementing the agreed reforms, or by taking counteractive measures to reduce the impact of the stated reforms. This reflects a critical problem with the ownership and commitment to reforms. Many of the reforms require strong political will to be effective. So far, this has been lacking.

Other important issues are also likely to forestall the achievement of the objectives of the forest sector reforms. The most significant of these is the persistence of governance problems and corruption. Where regulations are not enforced or have little meaning, it is unlikely that any measure to control the destruction of forests is likely to succeed. The second, related issue is the sequencing of reforms. While the stroke of the pen type reforms can be decreed, the effectiveness of a number of such reforms depends on institutional capacity to implement and enforce the regulations, which takes considerable time to develop. Thus, in the short run many of the reforms are unlikely to be effective.

These issues have led to criticism of the Bank's approach of focusing only on using various measures to bring the supply side under control and promote sustainable production. In the current legal and regulatory environment, these supply-side measures are likely to meet with limited success. In the short run, because of sequencing problems, there is a risk of adding to pressures on forests in the light of strong vested interests and economic incentives to deforest. An alternative strategy for the short run could have been to include measures to control the demand for forest products more directly. For example, slowing down the excessive capacity generation in the pulp and paper industry, or a judicious use of taxes and subsidies on finished forest products may be more effective until such time as the broader policy and governance issues are resolved.

Even in the long run, with adequate attention to the social equity and property rights issues, given the significant costs of regulating vast areas of forests, it is not clear that the local and regional governments would have the incentive to stop the conversion of forest lands to more financially attractive uses. The solution in many instances is likely to involve compensation to the local governments and communities to retain the natural forests intact.

One process-related lesson emerging from the Bank's adjustment lending experience in Indonesia is the problem of the Bank's credibility. There is a lack of awareness of how adjustment lending works, what the intended reform objectives are, and the details of the Bank's proposed reforms among many civil society groups, stakeholders, and observers (internal and external). This has resulted in a significant amount of criticism of the reforms included in the initial IMF loan—and even questioning of the Bank's intentions and integrity—even though many critics would agree with the intended objectives and have called for some of the same reforms. This reflects the lack of consultations and inadequate awareness-building to establish the support for the reforms from key stakeholders. The Bank has responded by adopting a more comprehensive program of outreach and stakeholder consultations in the development of the PRSL and a longer-term strategy for the development of the sector.

More generally, however, the Bank has invested little by way of domestic constituency building for its reform proposals. Even now, several observers are unaware of the Bank's phased approach to reforms or the rationale behind the specific recommendations. The problem appears to be a failure to properly disseminate the Bank's ESW and strategy. These processes are time consuming and resource intensive, and the Bank has not invested adequately in such activities.

Despite the remaining gaps in the Bank's structural adjustment program whose success remains to be seen, the Bank has succeeded in putting the forest sector high on the agenda for economic reform in Indonesia. It has generated a significant amount of awareness and debate, and helped make policy decision making more participatory and consultative than ever before.

Findings and Lessons

In terms of the results in the forest sector, the outcome is rated as highly unsatisfactory. The rapid pace of deforestation and the highly inequitable distribution of the benefits have contributed to significant

negative environmental and social impacts. Could this outcome have been avoided? Without evidence to the contrary, this question is difficult to answer. However, considering that Indonesia has made commitments at the highest levels of the government to maintaining a substantial level of forest cover, it is possible that with appropriate policies and the political will to implement its existing rules and regulations, the Indonesian forests could have been managed more sustainably.

In terms of the implementation of the Bank's 1991 Forest Strategy, this review concludes that it has been partially implemented, with some important gaps in the approach adopted. The intent of the Bank's sectoral policy dialogue has been clear and consistent with one of the two key objectives of the 1991 strategy, namely to reduce the pace of deforestation and focus on policy and institutional reforms. It has maintained a tough stance on policy and institutional reform. It also pursued a conservation agenda, albeit in a piecemeal fashion. As to the second objective, the Bank pursued tree planting through components in a number of non-forest projects.

An important shortcoming in the Bank's approach has been its failure to adopt a truly multisectoral approach, and its ignoring the impact of policies—especially the macroeconomic and pricing policies—outside the forest sector. The Bank's CAS and poverty strategy have not fully integrated the forest poor in any substantive way. More importantly, until recently, the Bank had downplayed the importance of the sector in its overall policy dialogue, which sent mixed signals to the government and considerably reduced the impact of sector policy dialogue.

Nevertheless, the Bank did implement many aspects of the 1991 Forest Strategy, but was unable to influence the highly unsatisfactory outcome in the forest sector. As a result of staying out of the sector, the Bank was unable to influence the outcomes. It had few counterparts in the Ministry (the exception being the Parks and Protected Areas section) to interact with on a regular basis. It also did not undertake any stakeholder analysis to prioritize the reforms, and was also unable to better prepare itself in the light of the latest developments in the sector. As a result, the sequencing and targeting appropriate policy reforms were not as good as they could have been. Nor was it able to build a platform and momentum for reform by reaching out to reform-minded stakeholders.

In terms of standard OED methodology, the outcome of the Bank's assistance to Indonesia in the forest sector is considered in terms of its

relevance, efficacy, and efficiency. To evaluate the Bank's involvement, it is necessary to distinguish between the pre- and post-1997 periods. The post-1997 involvement has been in the form of structural adjustment loans, which are still being implemented. It is too early to evaluate the outcome of this program. In terms of the quality at entry, after the initial IMF loan conditionalities, the Bank approach has improved considerably, and is considered satisfactory. For the pre-1997 period, the relevance of the Bank's assistance is considered satisfactory. In the post 1991 period, the Bank's policy advice and its limited involvement in tree planting and conservation activities was consistent with the Bank's sectoral objectives, the country's stated objectives of sustainable environmental management and conservation, and the 1991 strategy. Since the Bank was unable to achieve its objectives, the continued rapid pace of deforestation and lack of progress on institutional or policy reform, the efficacy of the Bank's assistance is rated as negligible. Efficiency is also rated as negligible. Overall, thus the outcome is rated as highly unsatisfactory.

The institutional development impact has been negligible. Sustainability of the achievements before the financial crises is not applicable since little was achieved, but the sustainability of the reforms pursued in the adjustment lending operations is at this time uncertain.

The Bank's performance is considered at two levels. At the sectoral level, the Bank's performance has been satisfactory. It engaged the government in a serious policy dialogue and maintained its policy position. At the aggregate or country level, however, the Bank's performance was unsatisfactory until 1997. The Bank's country department failed to pursue key issues in an economically, environmentally and socially important sector. This diluted the impact of the Bank's sectoral policy dialogue. Overall, the Bank's performance is rated as marginally satisfactory.

Borrower performance is rated as highly unsatisfactory. The Government of Indonesia has failed to pursue its own stated objectives and commitments, and the MOFEC has been unable and unwilling to control the destruction of Indonesian forests.

Lessons and Implications for the Future

As Indonesia and the Bank look to the future, the recent economic and political events provide a unique opportunity to pursue critical reforms. Some changes are already underway, of which the decentralization law and the adoption of a more consultative process for policy

formulation and dialogue offer much promise. The process, however, has so far been less transparent than desired and the changes fall short of expectations.

There are important lessons to be drawn from the collective experience of the countries that OED has studied. One is that institutional change is slow and requires years of sustained partnership, working side by side with partners and stakeholders interested in change. In Indonesia, as in other countries' forest ministries, reform-minded younger officials are keen to break with the status quo and to work with civil society to foster change.

This partnership, however, requires important steps by Indonesia. In a transparent and participatory manner, it needs to develop a clear forest policy and operational framework that reflects the current realities in the sector and can effectively contribute to the objectives of environmental sustainability and equitable growth. More importantly, it needs to develop an effective system that is non-discriminatory in enforcing rules and regulations. It is necessary to have a framework in which external partners such as the Bank and other donors can effectively operate and contribute.

The Bank in turn needs to make an important industry such as forestry an integral part of its CAS, adopting a genuinely multisectoral approach. The new Comprehensive Development Framework enables the Bank to transcend its earlier narrow focus on maintaining a lending program. However, within the framework of a new and transparent forest policy in Indonesia, this entails a long-term commitment on the part of the Bank, with adequate resources for economic and sector work; developing partnerships with reform minded institutions in the civil society and among donors; a proactive and constructive engagement of the private sector; maintaining an open and consultative policy dialogue; and developing a healthy mix of innovative instruments.



1

Introduction

This case study is one of six such in-depth supporting studies for an Operations Evaluation Department (OED) review of the implementation of the World Bank's 1991 Forest Strategy (see boxes 1.1 and 1.2). Indonesia is important to this review for several reasons. First, Indonesia is one of the 20 countries with the most threatened tropical moist forests identified by the 1991 strategy. Its forest endowment, the second-largest expanse of tropical moist forests in the world, or 10 percent of the total (Sunderlin and Resosudarmo 1996), includes some of the world's most species-rich ecosystems. Second, forest resources have made a significant contribution to the Indonesian economy, but the environmental and social impacts have raised a number of concerns both in Indonesia and globally. Third, Indonesia is one of the Bank's largest borrowers, having received a total of about US\$11 billion between 1992 and 1999. However, the Bank's influence on the outcomes in the forest sector has been negligible. The Bank has approved no new direct lending to the forest sector since 1991 as a consequence of an uneasy relationship between the Bank and the Ministry of Forestry and Estate Crops (MOFEC),¹ primarily because of the Bank's insistence on much-needed policy and institutional reforms.

The external assessment of Indonesia's performance has changed radically in the past two years following the 1997 financial crisis and the 1997/98 forest fires. These events have drawn considerable national and international attention to the forest sector, particularly to problems of governance (Hanson 1999). The forest fires were among the worst

Box 1.1. Bank Forest Strategy: The 1991 Forest Paper and the 1993 Operational Policy Directive

The 99-page World Bank publication *The Forest Sector: A World Bank Policy Paper* was published in September 1991. This paper (henceforth referred to as the 1991 forest paper) represented the initial comprehensive statement of a new direction for the Bank's forest strategy. A two-page Operational Policy directive (OP 4.36, produced in 1993) reflected the policy content of the paper, and a Good Practices summary (GP 4.36) provided operational direction to Bank staff. The 1991 forest paper, the OP, and the GP are together the subject of OED's evaluation.

In today's Bank terminology, the 1991 forest paper sets out a Bank strategy and the OP defines the policy. The 1991 forest paper gave guidance on policy directions, programmatic emphases, and good practice, and it specified principles and conditions for Bank involvement in the forest sectors of its client countries. It was the first instance of significant outside stakeholder participation in the formulation of a Bank sector strategy, and it is this document which the public considers the embodiment of the new direction for the Bank's forest strategy. Both the Bank's Board and civil society were referring to this document, as well as OP 4.36, when they asked OED for an independent evaluation of the Bank's forest policy. Although the Foreword for the 1991 forest paper was signed by then Bank President Barber Conable, the Board was not asked to, nor did it, comprehensively approve the 1991 forest paper. However, it did discuss the paper and endorse specific aspects of it.

The Board-endorsed principles contained in the 1991 forest paper included the ban on financing commercial logging in primary tropical forests; incorporation of forest sector issues into the general policy dialogue and country assistance strategy; and promotion of international cooperation, policy and institutional reform, resource expansion, and forest preservation. The endorsed principles also included the statement that "in tropical moist forests the Bank will adopt, and will encourage governments to adopt, a precautionary [sic] policy toward utilization. . . . Specifically, the Bank Group will not under any circumstance finance commercial logging in primary tropical moist forests. Financing of infrastructural projects . . . that may lead to loss of tropical moist forests will be subject to rigorous environmental assessment as mandated by the Bank for projects that raise diverse and significant environmental and resettlement issues. A careful assessment of the social issues involved will also be required" (p. 19). The Board also approved a specific section on conditions for Bank involvement.

Both the 1991 forest paper and the OP emphasize that the Bank will not finance commercial logging in primary tropical moist forests, and in addition, the 1993 OP adds that the Bank "does not . . . finance the purchase of logging equipment for use in primary tropical moist forests" (para. 1a). The OP also states that "in areas where retaining the natural forest cover and the associated soil, water, biodiversity, and carbon sequestration values is the object, the Bank may finance controlled sustained-yield forest management" (para. 1f). The 1991 paper, however, had stressed a lack of agreement on what constitutes sustainable forest management and offered three different definitions of it. However, all definitions of sustainable forest management typically include management of forests for *multiple uses* as distinct from timber production alone, to which logging normally refers. Although this provision in the OP to finance forest management under controlled sustained-yield conditions allows forest management under specific conditions (and the drafters of the OP thought this introduced some flexibility for the Bank), a survey indicates that the staff have not considered the OP to be flexible on this point. The Bank will need a clearer policy if its future lending and non-lending activities are to address issues of improved forest management relative to current logging practices in many countries, which this report argues often tend to be environmentally destructive and socially inequitable. What constitutes "sustainable" forest management will, in all likelihood, remain unresolved and specific to each location.

Based on the larger policy statement, the OP also states that "the Bank distinguishes investment projects that are exclusively environmentally protective . . . or supportive of small farmers . . . from all other forestry operations." It goes on to say that projects in the latter category "may be pursued only where broad sectoral reforms are in hand, or where remaining forest cover in the client country is so limited that preserving it in its entirety is the agreed course of action" (para. 1c). The main report for this study finds that the Bank could more usefully and proactively work with stakeholders sympathetic to reforms in borrowing countries in ensuring that reforms are in hand, rather than wait for them to occur before getting engaged in the forest sector.

Box 1.2. The Operations Evaluation Department Review of the 1991 Forest Strategy and Its Implementation

OED's review of the Bank's 1991 Forest Strategy¹ has been undertaken to assess Bank experience in the forest sector—particularly since 1991—to gauge its policy intentions, implementation, and impacts. The review also examines whether the Bank's strategy remains relevant and can embrace a strategy attuned to the current realities of the forest sector. In addition to briefing the Bank's Board of Executive Directors, the review will be used as an input to an ongoing Bank-wide review of its forest sector activities being lead by the Bank's Environmentally and Socially Sustainable Development Network (ESSD).

All of the case studies in this review consist of two parts—the first focusing on the extent and causes of changes in the forest sector, and the second on how the entire set of Bank instruments has interacted with the processes of the changing forest cover, and with what impact.

To the extent possible, the performance of the Bank has been assessed based on outcomes and impacts. Six classes of outcome are considered:

- Improvement in country policies and strategies with direct and indirect impacts on forests
- Institutional development including improvement of the legal framework, a redistribution of roles between the public and private sectors, and participatory approaches to decisionmaking
- Improvements in technologies
- Capacity building and human capital formation
- Improvement in the incentive structure
- Improved information, monitoring, and evaluation systems.

1. The strategy is summarized in Annex B.

environmental disasters in recent history and inflicted significant financial and environmental damages. The remaining forests have also helped absorb the impact of social disruption resulting from the financial crisis. These crises have highlighted some important underlying structural problems, as noted in the recent Country Assistance Review (CAR) by OED (World Bank 1999). Besides a weak financial sector, the CAR identified a fragile social situation and governance and corruption as the major issues that most urgently need to be addressed. This report shows that these are also the important issues in the forest sector.

A review of World Bank assistance to Indonesia in the forest sector since 1991 faces two challenges. The first is maintaining a distinction between an assessment based on quick solutions to outstanding problems and one based on long-term underlying objectives and historical facts, and how they shaped government and Bank actions toward Indonesia's forests until 1997. The second challenge is to assess the performance of the Bank's 1991 Forest Strategy in a situation where, despite largely adopting the principles that its strategy espouses, the Bank has been unable to influence the rate of destruction of natural forests.

Following a brief discussion of the background and context to the current forest sector situation in Indonesia, this review is divided into two parts. The first part presents the state of the forests and the forest sector and identifies the pressures on forests and the key issues. The second part assesses the Bank's involvement in the sector and concludes with the main findings of the review.

The Indonesian Miracle

Indonesia has followed an export-led growth strategy, which has resulted in a sustained and rapid rate of economic expansion lasting nearly three decades, accompanied by an impressive reduction in aggregate poverty. As part of this growth strategy, the government has viewed the forest resource as an asset to be liquidated, establishing Indonesia as a world leader in the exports of tropical forest products. While tradeoffs between development and environmental objectives are inevitable, and some deforestation will occur in the pursuit of economic development, what disconcerts most observers is the current inequitable and unsustainable pattern of forest utilization.

For almost three decades—until the 1997 financial crisis—Indonesia was widely praised as a development success story (World Bank 1993a). An average annual growth rate of 7 percent from 1979 to 1996, with per capita GDP growing at 5 percent, and the corresponding decline in poverty from 60 percent in 1970 to 11 percent in 1996, is an impressive and unique performance among developing countries (World Bank 1990a). The economic growth was accompanied by low inflation and was broad-based and labor-intensive. The early focus (1970s and 1980s) on agriculture and improvements in irrigation and rural infrastructure helped to raise rural incomes and sustain poverty alleviation. After the mid-1980s, the focus changed to labor-intensive manufactures and higher-value-added production for further growth and poverty reduction. By the 1990s, domestic investment rates reached almost 30 percent, financed predominantly with national savings. Prudent macroeconomic management and fiscal discipline provided economic stability. Trade and financial sector liberalization helped expand and diversify exports of agricultural, natural resource-based products, and manufactured goods.

On the social front, too, Indonesia performed well, backed by strong human resource development. Social indicators improved, reflecting an improvement in the quality of life of average Indonesians, with reduced infant mortality (down from 145 per 1,000 births in 1970 to 53 in

1995), higher life expectancy (from 46 to 63 years), and higher adult literacy (from 61 percent to 84 percent). Rapid agricultural growth, fueled mostly by rising rice yields, increased food security, reducing Indonesia's dependence on food imports.

A unique feature of the Indonesian "miracle" is that the exploitation of the natural capital, by deliberate government policy, has been an important source of growth and economic development. For the past 10 years, forest products have, on average, contributed about 6–7 percent of GDP and 20 percent of Indonesian foreign exchange earnings, with forest product revenues of about US\$8.5 billion, ranking second only to oil (Kartodihardjo 1999b).

Building an Economy on Exports

Indonesia has followed a successful export-led development strategy. It has consciously diversified its exports out of oil² into, among others, forest products to thriving timber markets in developed countries, particularly Japan. By the late 1970s, Indonesia had established itself as a dominant exporter of logs, controlling 41 percent of the world log market in 1979 (Gillis 1988). The export-diversification drive, to reduce the dependence on oil revenues following the oil shock of early 1980s, led to a growth strategy relying on higher value added through domestic processing of wood products (primarily plywood). This transformation was achieved through a ban on the export of logs (phased in over the period 1982–85) and incentives to establish the processing industry. By 1988, Indonesia had become the leading exporter of tropical plywood, and since then it has controlled about 70 percent of the world market. The drive for diversification to sustain export earnings has more recently focused on expanding the production and exports of pulp and paper products and tree crops (particularly oil palm). Over time, together with Malaysia, Indonesia has taken over the African export markets for palm oil, rubber, coffee, cocoa, and coconuts, with production based mostly in the outer islands.

In addition to timber extraction, a number of development policies have had impacts on forests. These policies include a drive for food self-sufficiency, the political imperatives of poverty reduction, a solution to Java's growing population pressures, and the need to diversify the export base. The vastly unequal distribution of the land/population ratios between Java and the outer islands and the extent of poverty on Java made opening the outer islands an important instrument of public policy. The outer islands are endowed with rich minerals, forests, fisheries,

and land suitable for export crops, making them attractive for reducing population pressure on Java, increasing export earnings through the exploitation of mineral resources, and achieving national integration in a country where Java has historically dominated the politics and culture. Extraction of mineral resources from forest areas, which include gold, diamonds, coal, iron ore, copper, and nickel, has often involved massive infrastructural development for access.

The contribution of the forest sector to Indonesian growth has been significant, but the outcomes for its environment and society leave much to be desired. Apart from being inequitable, the pattern of development has had environmentally damaging consequences. The growth strategy has been criticized by some as the major cause of the loss of the rainforests (Dauvergne 1997). Accounting for the loss of natural capital, some have argued, may reduce Indonesia's growth performance from the impressive to the ordinary (Barber et al. 1994). Similar arguments have led to a plea for explicit accounting of natural resources in the measurement of GNP in order to gain a better picture of the net benefits of economic development.

The government has expended little effort so far on sustainable management of the forest resources, but this is not for lack of laws and regulations, or the declared intentions of the government on the environment. Indonesia has been a signatory to all international conventions and has formally committed itself to protecting its biodiversity (in its Biodiversity Action Plan) and to meeting the ITTO guidelines for its tropical forest product exports by the year 2000 (in the Tropical Forestry Action Plan). It has a highly articulated set of laws, rules, and regulations regarding land use and forest management. On environment in general, Indonesia has projected a positive image and political commitment at the highest levels. It introduced the environmental impact assessments (AMDAL) in 1986, and more recently supported the establishment of the Ecolabing Institute. Despite these stated intentions, the damage to Indonesian forests has continued virtually unabated, with a large gap between the rhetoric and the implementation of existing laws.

Environmental and Social Consequences

The social consequences of the past patterns of development have been an increase in conflicts because of disputes over forestlands and discontent over the inequitable distribution of the benefits. The ownership and access to resources are important issues in the forest sector. At the core of

the problem is the blurring of the boundaries of various categories of forests and unclear land and user rights. Where the line between permanent forests and conversion forests is drawn, and by whom, is a major source of contention. Total disregard for the traditional *adat* rights of the forest dwellers in granting concessions on “government owned” forest lands and the transmigration programs of the government have resulted in major conflicts over the control of natural resources.

The roots of these social conflicts go back to the inception of the New Order regime in 1967. The state opted to use Indonesia’s natural capital to establish its authority and legitimacy. It exploited the abundant resources to provide capital for development expenditures, and used the economic rents for political patronage. Deft macroeconomic management by Indonesia’s technocrats resulted in a stable market and policy environment, which sustained the impressive 30-year *economic* expansion. This provided the government the resources to deliver development benefits to most of its people, providing it the “legitimacy” to pursue its economic strategy, but it also strengthened the system of political patronage (Barber 1997). In the forest sector, however, the benefits have accrued to a politically well connected elite (including the military), not only ignoring but also often at the expense of the forest dwellers and indigenous peoples in the hinterlands of Indonesia’s outer islands (i.e., other than Java, Bali, and Madura). In the past, the claims of the latter on the natural resources, and conflicts over benefits appropriation, were effectively controlled by an efficient and heavy-handed military and domestic security apparatus. Over time, however, the conflicts have increased and, with an increasingly bold media and vocal civil society, they are not as localized as before.

The Bank has been in the forefront in delivering policy advice and arguing for reforms. The focus of most policy proposals has been addressing the issues of incentives and institutional capacity for sustainable forest management. The primary concern has been to control the supply of forest products, particularly timber. While these incentive structures to address the issue of resource scarcity must be addressed, they may not be sufficient. The central issue in Indonesia has been extremely weak “environmental governance” (Hanson 1998). In this situation, others have argued that, given the widespread corruption and the strong incentives led by the forces of export demand, the international community has been wasting its time and resources in focusing on the “supply led” domestic issues rather than focusing on containing the demand for tropical timber in the industrial world.³

The solutions to social problems, particularly of tenurial rights, are neither simple nor easy; they raise challenging legal and institutional issues that will take time to resolve properly. They also have important implications for the pace and sequencing of reforms, and as such for the World Bank's current and future involvement in the sector through its alternative lending instruments: relatively long-term project lending compared to the one-shot disbursements through adjustment lending. The Bank's economic and sector work (ESW) has accurately identified the decisions in the forest sector as being essentially political (World Bank 1993b). Better information, streamlining of institutional structures, and a consultative decision-making framework can help improve the quality of decision making; however, these measures will not transform the decisions into apolitical ones, hence the important role of the government. So far, however, the government has shown little resolve to address these issues.

The environmental and social tensions have been accentuated since the rapid deterioration in the macroeconomic environment starting in July 1997, when the Asian financial crisis hit Indonesia. The outcome of the crisis was worse than could have been expected under any circumstance. The rupiah lost up to 80 percent of its value against the U.S. dollar in the following months. Real GDP fell 15 percent in 1998, against a rise of 7.8 percent expected in the 1997 CAS, and there has been a dramatic rise in poverty, food imports, unemployment, and inflation. Indonesia's forests have been doubly hit because El Niño, and the fires and air pollution that were associated with it, made their marks shortly after the July financial crisis. Indonesia's major export markets in East Asia were also hit by the crisis.

Governance and Reform

The deteriorating economic and social conditions led to a political crisis for the New Order. Until May 1998, when President Soeharto resigned after 30 years in power, there was virtually no political opposition.⁴ The recent developments have led to potentially far-reaching political changes. With the opening of the political system, the documentation of the KKN system (which stands for *kolusi*, *korupsi* and *nepotisme*, the popular euphemism for the rampant practice of corruption, cronyism, and nepotism) through press accounts and research reports has been explosive in recent months. These accounts document the extent to which those in power received a disproportionate share of the economic benefits through the KKN system.

The crisis led to an IMF standby agreement with the government in late 1997. With continued deterioration of the rupiah, the government and the IMF agreed on a reform package in January 1998. The IMF took the unusual step of including forest sector conditionalities, so far taken up in only two other countries as part of IMF packages.⁵ At the last minute, the IMF asked the Bank to recommend forest-related conditions to be included in its reform package. The intent of including these reforms was, in part, to increase government revenues and increase exports, but it was also to address issues of sectoral governance, competitiveness, and environmental impacts.

Few specific conditions could realistically be included in an already long list of conditions (117, of which 11 conditions, requiring 17 different government actions, were related to forests). Given the emergency nature of the situation, there was no time for stakeholder consultations. The Bank opted for some “stroke of the pen” policy and regulatory reforms, which it considered had a reasonable chance of being implemented and sustained. It considered these initial reforms to be part of a longer-term reform program. The Bank has since followed the IMF package with two Policy Reform Support Loans (PRSLs), the first was approved in April 1998, and the second in April 1999. It is now actively engaged in developing a comprehensive strategy for the forest sector based on a transparent and broad-based consultative process. Such a process is time-consuming, but it is critical to addressing the complex social and governance issues that are central to the forest sector in Indonesia. The recent developments are significant also in that Indonesia is one of the few countries where forest-related conditions have been included in a macroeconomic adjustment framework, specifically aimed at promoting sustainability and forest protection. Past-adjustment operations have been widely criticized for their negative impacts on forests (Kaimowitz and Angelsen 1999).

Where We Are Now

These events signal a new era of Indonesia’s relations with the international donor community. They have raised the status of forest issues in the broader discussions of economic management. They also mark the return of a policy dialogue between the Bank and Indonesia on forest-related matters after a hiatus of almost four years. More important, it has opened an opportunity to address issues of governance, policy, and social justice as an integral part of the Bank’s strategy. In sharp contrast, the balance of payments support to Indonesia in the early 1980s

by the Bank had been equally exceptional. Unlike adjustment loans to other countries of that period, it contained *no* conditions, reflecting the extent of World Bank confidence in Indonesia's macroeconomic management.

These developments are also significant for the implementation of the World Bank's 1991 Forest Strategy. Although it identifies Indonesia as among the 20 countries having the most threatened tropical moist forests, the Bank has had limited involvement with the forest sector since 1991. The Bank had been in the forefront of policy dialogue calling for fundamental reforms in the sector, but was unable to make any headway until the financial crisis. The Bank did continue to pursue some limited conservation activities through an operation jointly financed with the Global Environment Facility (GEF) and some forest-related activities as components of other projects.

PART I: THE FOREST SECTOR IN INDONESIA



2

Forest Cover Changes and Their Causes⁶

Forest Land

Almost 78 percent of Indonesia's total land area, 147 out of 189 million hectares, is officially classified as forest land.⁷ Outside of heavily populated Java, the share classified as forestland was even higher at 88 percent of the total land area.

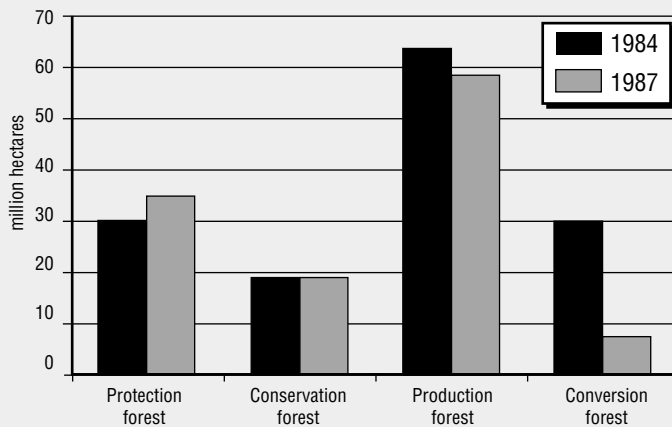
The official measures of Indonesia's forests were established by a consensus of provincial government agencies in 1984, approved at the ministerial level of the central government, using the agreed functional forest land classification system (*Tata Guna Hutan Kesepakatan*, or TGHK).⁸ The provincial agencies made their assignments of land to forest based on land use maps available in the provincial offices at the time. Essentially, they defined forests as all lands not otherwise identified with existing agricultural or urban land uses. Even in 1984, however, the area they identified as forest included some lands that did not contain trees, for example the "savanna forests" of West Nusa Tenggara, and some lands with established villages.⁹ This means that the 1984 inventory was only an estimate, and it is not surprising that the government often ran into local contention when it tried to enforce the 1984 boundaries.

The 1984 boundaries provide the starting point for all subsequent estimates of the forest inventory. Area under different types of forests according to this classification is given in table A.1 (Annex A). Comparisons over time, however, are not easy due to adjustments in forests

classified under different types, and indeed in the classification system itself. Starting in 1993, the TGHK was merged with provincial spatial planning (*Rencana Tata Ruang Wilayah Propinsi*, or RTRWP) classification system following the Spatial Management Act of 1992. This integration led to significant changes in the area listed as state-owned forest as shown in Figure 2.1 (Kartodihardjo and Supriono 1998). At the national level, state-owned protection forest area increased from about 30 million ha in 1984 to about 35 million ha in 1997. The conservation forest area has remained at roughly 19 million ha. The production forest area changed from about 64 million ha in 1984 to about 59 million in 1997 (of which, permanent production forests have remained at 34 million ha, but limited production forests have declined from 30 million to 25 million ha). Meanwhile, the area of conversion forest that is used for tree crop plantation, transmigration, and other purposes has experienced the biggest decline, from about 30 million ha in 1984 to about 8 million in 1997.¹⁰ It should be noted that both protection and conservation areas have been subject to encroachment, but no data are available to assess their extent.

In summary, approximately 112 of the 147 million ha are administered as “permanent” forest that is not subject to potential conversion to any other use.¹¹ MOFEC counts an additional 6 million hectares

Figure 2.1. Changes in Forest Classification, 1984–97



Sources: Kartodihardjo and Supriono 1998 and World Bank 1993b.

outside its jurisdiction as forest, taking the total to approximately 118 million hectares, or 63 percent of Indonesia's total land mass (D.G. Forest Inventory and Land Use, 27 June 1994).

Land with Forests

The actual extent of forested land, that is, land with forest cover, is uncertain for lack of reliable data. The sixth Five-Year Development Plan suggests this is 48.1 percent of total land area, while the National Forest Inventory, using satellite data, indicates that the coverage may be as high as 69 percent (RI 1994 and GOI/FAO 1996, quoted in Sunderlin and Resosudarmo 1996). Although the precise forest cover is not known, the consensus is that Indonesia has lost a significant proportion of its natural forest.

The annual rates of deforestation have previously been estimated over a wide range from 0.3 million to 1.3 million hectares per annum, with a previous World Bank estimate of 0.9 million ha being close to the average (World Bank 1990b). The rate of forest degradation has increased significantly in the 1990s and is currently believed to be at the unprecedented level of more than 1.5 million hectares per year.¹² This is supported by a recent study that indicates almost 17 million hectares have been degraded as a result of the activities of commercial timber concessionaires alone (Kartodihardjo and Supriono 1998).

A focus on forests, however, does not present a complete picture of the country's tree cover. This is because two categories of lands with tree cover are excluded from the official statistics on forests: (1) smallholder woodlots and agroforestry lands; and (2) perennial "estate crops" like rubber, coconut, oil palm, and various fruits and nuts. As tree crops, they have environmental impacts that are comparable to those of the managed forest plantations that are included in the forest inventory.

There are no good measures of the basic agroforestry plantings for activities like subsistence forest consumption or local erosion control, but many anecdotal observations suggest that these are significant, particularly in Java. One Indonesian observer suggests that trees cover 70 percent of Java—but Java has only a very small official forest inventory (Garrity 1999). Java's official forest cover, that is, area under the jurisdiction of the MOFEC, is 23 percent of the island's total land area. The discrepancy is not important for the ministry's management because it represents lands and forests that fall outside its jurisdiction. However, the discrepancy is significant for anyone concerned with global forest cover or with rates of deforestation.

Estate crops include trees and woody plants like those identified with the products listed above and also annual agricultural crops like sugar cane and tobacco that are often grown in expansive plantations (see table A.1, Annex A, for estimates of the perennial—or tree—component of estate crops). The area in perennial estate crops grew rapidly from 5.6 million hectares in 1973 to 12.7 million hectares in 1994 to more than 13.4 million hectares in 1996 (Department Pertanian 1997).

In sum, total forest area is difficult to capture in one sharply defined empirical measure. This means that is difficult to find a good measure from which to judge proportional rates of forest sustainability or from which to begin any summary assessment of the impacts of forests or trees on human welfare.

Causes of Deforestation

Related to the extent of deforestation, and its associated costs and distribution of benefits, an area of significant debate concerns the underlying causes of deforestation. This debate is significant because of the implications of Indonesia's experience for the future forest sector policies (Sunderlin and Resosudarmo 1996). In addition to the general lack of data, the debate has been fueled by confusion on individual researchers' definitions of "forests" and "deforestation," as well as the definitions and understanding of traditional "swidden" or shifting cultivation, as opposed to the practices followed by migrant smallholders.

One side of the debate stresses the role of smallholders and, directly or indirectly, shifting cultivation as the primary source of deforestation, a view long espoused by the New Order regime (Barber 1997). The role of smallholders is also stressed in the Bank's 1991 Forest Strategy. The other side of the debate, based on empirical research, stresses the power of the international demand forces mentioned earlier, as well as government policies and the commercial interests as the main actors responsible. Research on the underlying causes of deforestation has become particularly active in recent years but remains piecemeal. It suggests that multiple factors have contributed (e.g., timber sector, tree crop plantations, transmigration—spontaneous and regular, and shifting agriculture), but the relative importance of government programs and commercial interest is increasingly being accepted (Sunderlin and Resosudarmo 1996).

A major source of deforestation and forest degradation has historically been the large-scale commercial timber interests. From about 1950 to 1985, commercial logging for timber (unprocessed) exports was the

main source. Log exports from Indonesia to Japan increased from six million m³ in 1970 to 11.45 million m³ in 1973 and remained at 8.6 million m³ until 1985, when the log export ban was imposed. Over this period, some estimates suggest that about 33 million ha of forests were logged, roughly at the rate of one million ha per year (Barber 1997). From 1985 onwards, with the shift to higher-value-added products, the pace of forest clearing or degradation has coincided with rapid growth of the forest product processing industry, particularly for plywood. More recently, the role of the pulp and paper industry and the growth of estate crops, especially oil palm, have accelerated the pace of conversion of natural forest. As discussed later, the current economic incentives favor conversion for all kinds of tree crops and have increased considerably since the onset of the financial crisis.

The World Bank has also shifted from its view that deforestation is predominantly smallholder-led (World Bank 1990b) to recognize the significantly greater role of the timber industry in deforestation and degradation of Indonesian forests (World Bank 1993b). However, the pressures on forests arise from a number of different sources, and are a result of complex interactions of forest and non-forest policy and regulatory policies (Angelsen and Kaimowitz 1999). The impact of specific policies requires detailed analysis in particular circumstances, but the Bank's ESW has been limited in recent years. As will be discussed in Part II, the analytical work that the Bank has done (World Bank 1995) recognizes the emerging trends in the forest sector, but has not fully assessed the extent or the pace of development of these trends and their implications for current or future levels of deforestation.

Among the areas where more detailed analysis is needed are the role of macroeconomic policies, the domestic and international demand for forest-based products and their backward linkages to forest sector, and the forces behind the conversion of forests, primarily the strong incentives provided by the returns to agriculture *vis-à-vis* those to sustainable management of forests. These issues are particularly important in Indonesia's political and administrative climate, where the enforcement of laws, rules, and regulations is extremely lax. This greatly reduces the costs and increases the profits from unsustainable forest management.

Parks, Nature Reserves, and Biodiversity¹³

Indonesia is one of the two most biologically diverse countries in the world (Brazil being the other). The main repositories of that biodiversity are forests and coastal regions, and some biota, like mangrove swamps,

are both forest and coastal and are unusually rich in biodiversity. Although the Indonesian archipelago represents only 1.3 percent of the earth's land surface, it contains an estimated 25 percent of the world's known species of fish, 17 percent of birds, 16 percent of reptiles and amphibians, 12 percent of mammals, 10 percent of plants, and an unknown number of species of invertebrates, fungi, and microorganisms. The species composition changes from east to west across the archipelago. Indonesia's flora remain predominantly Malaysian throughout but its faunal distribution reflects ancient land connections, with placental mammals in the west and marsupials in the east. Many islands in the archipelago display high levels of species endemism—reflecting their millennia of isolation.

Indonesia has made a strong commitment to protecting its invaluable heritage. As noted above, the TGHK reserved 20 percent of the forest estate as protected forests and another 13 percent as conservation forest. Of the rest, 44 percent was to remain as permanent forest, although it could be used for production forestry. Biodiversity protection plans follow the national Biodiversity Action Plan, issued in 1991, which identified national conservation priorities. On the international stage as well, Indonesia has been a major developing country player in conservation agreements, being among the first signatories to the 1992 Convention of Parties following the Rio Earth Summit, and then it hosted the Second Conference of Parties in 1996 to discuss implementation of the Convention.

To protect its most valuable natural ecosystems, Indonesia has designated (as of 1997) a protected area network of 35 national parks and 339 other reserves (including coastal reserves). Of these, 303 conservation areas account for the 19 million ha of conservation forests. Table A.2 (Annex A) summarizes the biological diversity of Indonesia's eight biogeographic regions and table A.3 summarizes the extent of major terrestrial habitats and the areas of protected habitat or habitat proposed for protection in the Biodiversity Action Plan. The system, however, is not yet complete, with 36 of 80 "critical reserves" remaining legally unprotected.

Despite the recognized importance of biodiversity conservation, and the availability of resources (domestic and donor), the management of the designated protected areas is well beyond the means of the responsible government agency, the Directorate-General of Forest Protection and Nature Conservation in MOFEC. The main approach to conservation in Indonesia has been through the Integrated Conservation Devel-

opment Programs (ICDPs). While some individual ICDPs are promising, they have not had any significant impact on biodiversity conservation, and they are not sustainable (Wells et al. 1999). The main problem lies in the seemingly incomplete approach to biodiversity conservation. The ICDPs focus on local communities as the primary threat to protected areas and biodiversity, whereas the major threats are from large scale operations such as road construction, mining, logging concessions and sponsored migration. At the same time, ICDP efforts to establish incentives for conservation by investing in local development are frustrated by inadequate law enforcement and expropriation of natural resources by powerful non-local interests. Thus, although in principle the past government tried to strike a balance between conservation and the productive use of forests, in practice its actions—including the lack of attention to governance issues—have shown a preference for the exploitation of forests over conservation.



3

The Management of Forests¹⁴

Indonesian Forest Policy

State ownership of forests is common in most nations, and Indonesia is no different. The ownership of most forestland in Indonesia was transferred to the New Order state in 1967 through the Basic Forestry Law (*Undang-Undang Pokok Kehutanan No. 5/1967*). All traditional or *adat* rights were subordinated to this law and to the national forest policy. The rights of the communities that have traditionally lived in and around the forests have been neglected or generally overruled.

It has long been recognized that the Basic Forestry Law is out of date. Since 1989, 10 draft laws have been drafted, but only after intense pressure was the new forestry law (also called the Basic Forestry Law—Act No. 41/1999) promulgated on September 30, 1999. The new law has been heavily criticized, including by former senior government officials and the civil society, for making little progress on the key issue of the rights of local communities. Thus, despite the fervor of the current era of *reformasi*, an important opportunity for achieving the long overdue reform of the fundamental policies governing the forest sector was missed.

Administrative authority for the state's forest estate was vested in the Ministry of Forestry until 1998. In 1998, estate crops were included in the responsibilities of the new Ministry of Forestry and Estate Crops (MOFEC). This change has important implications for the future management of forests through the implementation and impact of forest policies. With management responsibility of about three-quarters of the

country's land, MOFEC has considerable weight in land use decisions, a major field of public policy.

The ministry delegates management of "production" and "limited production" forests to private concessions and state-owned enterprises. It designates "conversion" forests for timber harvests followed by conversion to agricultural and other non-forest uses. Conversion forests may be designated for conversion to estate crops or forest plantations, in which case the authority for their oversight remains within the MOFEC; or they may be designed for use by transmigrants, in which case the authority will be transferred to the Ministry of Transmigration and Shifting Cultivation once conversion occurs.

Commercial timber harvests have been the dominant concern in the implementation of Indonesian forest policy. The management of the forest sector has catered to the commercial timber industry based on a system of forest concession rights (known as *Hak Pengusahaan Hutan*, or HPH), industrial forest or timber plantation concessions (known as *Hutan Tanaman Industri*, or HTI), and estate crop plantations. The concessions are licensed to private enterprises or to special state-owned enterprises (known as *Badan Usaha Milik Negara*, or BUMN). State-owned enterprises include four *Perum Inhutani* plantations and five *Inhutani*, which are largely responsible for rehabilitating revoked concessions.¹⁶

The timber and wood processing sectors, and more recently estate crops and forest plantation sectors, are dominated by a few integrated conglomerates. The plywood industry has dominated the processing sector since the mid-1980s, and until recently was tightly controlled by a plywood marketing cartel. The concession system has been the embodiment of the political patronage system of the New Order regime since it came to power in 1966, with significant financial gains accruing to a few politically well-connected individuals with an unusual degree of influence on Indonesian forest and trade policies (Barber 1997). With the changing trends in the processing sector, and emerging market forces, the rent-seeking has increasingly turned toward exploiting the HTI system, often in combination with the HPH system, and the conversion of natural forests to estate crop plantations (Kartodihardjo and Supriono 1998).

Indonesian commentators have argued that a significant consequence of the forest policy has been an increase in economically deprived and environmentally poor regions in and around forests. The Bank's own approach to the issues of forest-dwelling communities has changed substantially from direct funding of the infamous transmigration schemes in the early 1980s, to the recognition of the local communities as a key

“interest group” (World Bank 1993b), to a letter to the government in June 1999 suggesting that it listen to all stakeholders before rushing to pass the new forestry law.

Industrial Wood

The Basic Forestry Law established the basis for commercial exploitation of forests in the Outer Islands by providing MOFEC the authority to grant HPH *timber concession* licenses in areas designated as production and limited production forests. Government regulation number 21 of 1970 provided the HPH holder a non-transferable right for 20 years, and stipulated that the concessionaire follow the principles of sustainable forest management as prescribed by the Indonesian selective logging and planting system (*Tebang Pilih Tanam Indonesia*, or TPTI). The system prohibits harvesting trees with a diameter of less than 50 cm and to follow a 35-year rotation to permit adequate regeneration. The ministry and the HPH holder sign an agreement that contains rules for long-term planning, harvest levels based on approved annual work plans (*Rencana Karya Tahunan*, or RKT), land rehabilitation after harvests, and community development. The applicant guarantees the establishment of a vertically integrated forest industrial activity (sawmill or plymill) in association with the concession. The agreement is renewable, and in some cases, renewals have been denied because of poor performance. In many cases, however, HPHs have been renewed despite poor management. All *Inhutani* have been assigned management responsibilities for some of the lands from non-renewed or revoked HPH licenses.

Despite the requirement that concessionaires establish mills in association with their concessions, there never has been a requirement that concessions supply only their own mills. Concessions generally do provide raw material for their own mills because the mills and the concession are in the same timber shed. Nevertheless, when other concessions and mills occur within the same timber shed, then concessionaires have a history of allowing the local market to allocate their timber harvests.¹⁵

Since the mid-1980s, the government has promoted, and financed out of the Reforestation Fund (proceeds from the reforestation fee discussed below), industrial forest or *timber plantations* through the HTI program. The aim of the program was to encourage the establishment of a large industrial forest estate to meet the country's long-term needs (World Bank 1993b). Before 1989, the HTI scheme required the HPH concession holders to undertake plantation activity as part of the agree-

ment. However, poor results and quality of tree stands led to a new approach in 1989 that granted a land use right in the form of an HTI concession, with an understanding that the developer would have the rights to the wood produced.

According to government regulation no. 7 of 1990, HTI development can take place within production forest, and the permit allows the holder to clear cut a designated area and to replant it with commercial tree species (Barr 1999). The scheme was designed ostensibly to rehabilitate unproductive (or degraded) forests, with a residual standing forest inventory of less than 20 m³ per hectare of commercial species with a minimum diameter of 30 cm. Private investors, cooperatives, and state-owned companies (or joint-ventures among these) can apply for an HTI permit for a period of 35 years. HTI management is distinct from the management of forest concessions, where selective harvest practices are required to obtain natural regeneration and maintain the existing forest.

To establish HTIs, the government has provided financial incentives to private investors. The scheme requires only a 21 percent equity investment for the plantation's total capital requirements. Firms entering joint-ventures with one of the *Inhutani's* can secure 14 percent of the project's total cost as a nonrefundable allocation from the Reforestation Fund, and can also get an interest-free noncollateralized loan for a period of 10 years that is equivalent to 32.5 percent of the investment from the Restoration Fund. The remaining 32.5 percent can be obtained as a loan at commercial rates, also from the Restoration Fund.

There are three distinct types of HTI: pulpwood plantations, non-pulp, and HTI-transmigration. In consonance with government efforts to promote the pulp and paper industry (also since the mid-1980s), pulp plantations have been regulated with a different set of rules than the other, longer-rotation timber plantations. Whereas the concession size of non-pulp timber plantations is limited to 60,000 hectares, the pulp plantation size limit is 300,000 hectares. Further, while all areas of non-pulp plantations must be planted, pulp plantations are allowed to plant a portion of the area, but can log the rest for use as pulp until the pulpwood production comes on stream. The HTI transmigration scheme, introduced in 1992, allows clear-cutting on an HPH site provided 10 percent of the area is reserved for transmigration purposes. The rest of the arrangements are similar to other HTI contracts.

MOFEC has also taken other measures to benefit the pulp and paper industry by introducing regulations, in 1992, requiring all production forests within a 100 km radius of a pulp mill to be used for pulpwood

plantations. Ministerial Decision 442/1992 circumvents the original HTI regulations on converting productive natural forests and permits clear-cutting of significant stands of commercially valuable timber.

The government attaches three basic fees to the operation of forest concessions:

- The IHPH (*Iuran Hak Pengusahaan Hutan*) is an annual area-based fee paid at the granting of the concession. It typically runs in the range of US\$3–10 per ha. The MOFEC collects the IHPH and redistributes 70 percent to local governments (3/7 for forestry development and 4/7 for general development) and 30 percent to the central government.
- The reforestation fee (*Dana Reboisasi*, or DR) is a fee per cubic meter of wood harvested. It varies by region and species group. The MOFEC recalculates this fee semiannually. The average fee as of May 1999 was about US\$16.50 per m³—about 20 percent of the delivered log price, which is also about 20 percent of the border price. (The US\$16.50 is a 10 percent increase from 1998.) This fee contributes to a fund that was designed to cover reforestation costs where concession reforestation performance was inadequate. In fact, it has become a source of general support for the MOFEC. It is also widely known that these funds have been an easy source of discretionary funds for special political interests, and especially higher political interests external to the ministry.
- The IHH (*Iuran Hasil Hutan*) was a royalty on logs, charged on the basis of weight or volume, collected by the MOFEC. The IHH varied by region and species group. This royalty was semiannually based on the check price (the local market price for the lowest quality log) identified by the Ministry of Trade and Industry. Following the conditions in the IMF emergency package, the IHH has been replaced by a forest resource royalty (FRR). Currently, the FRR is to be revised periodically to ensure capture of at least 60 percent rent from timber. (The Bank's adjustment loans required that the revision be made by the end of 1998, but MOFEC did not think it was necessary. Eventually, the MOFEC announced a compromise increase to 10 percent).

Before 1998, IHH revenues were distributed 45 percent to local governments (30 percent provincial and 15 percent district) and 55 percent to three central government accounts: 15 percent to a MOFEC account to be allocated to forest sector activities within provinces, 20 percent to the central government for forest rehabilitation and forest sector activi-

ties, and 20 percent for PBB (*Pajak Bumi dan Bangunan*), a property tax on land and buildings that is transferred to the Ministry of Finance. A presidential decree in April 1988 combined the latter two in a central government account for forest sector activities.

The funds collection from DR and IHH are the largest by far, and their calculations and allocations are important topics in discussions of policy reform. Collections from the DR were estimated to be over Rp 800 billion in 1996 (US\$340 million at the average annual exchange rate for 1996 of 2348 Rp per dollar) and Rp 1.5 trillion in 1998 (US\$196 million at the average annual exchange rate of 7619:1) and they are growing at a rapid rate. According to an external audit, for the five years ending March 31, 1998, the reported total amount of the reforestation fund was US\$1.73 billion. The audit (conducted by the firm of Ernst & Young) also noted that based on a realistic estimate of timber yield of 60 cubic meters, the reforestation fund should have been US\$4.388 billion, suggesting a receivable loss over the five year period of US\$2.658 billion, plus an additional loss of US\$1.56 billion in interest.

Log Allocation and the Processing Industries

A 200 percent export duty on log exports replaced a log export ban in 1992. Both regulations effectively restrict international participation in Indonesia's log market and reduce local prices. These regulations provide effective subsidies for the domestic wood processing industries. While the restrictions reduced the draw on forests by decreasing export demand, the lower prices also encourage domestic processing demand and decrease the incentive to reforest.

More recently, the export tax has been revised following IMF-World Bank structural adjustment conditions. The 200 percent duty was decreased to 30 percent in 1998 as a first step in getting rid of it altogether. Nevertheless, there was little increase in log exports in 1999, perhaps because domestic mill demand is high and demand from Indonesia's traditional markets for processed products (Japan and Korea) is low, but also because exports require an export license. The Ministry of Trade and Industry has approved only 21 export licenses for 479,390 m³ of logs. Actual official exports were only 114,000 m³ as of December 1998, with the majority shipped to China and India. The trade restrictions, thus, appear to be effectively still in place.

While these restrictions tend to decrease log consumption below what international market conditions would predict, the government also subsidizes the forest processing industry. In the past, there have been

capital investment subsidies for mills and export subsidies on forest products. These even further improved the international position of the wood processing sector. Preferential export treatment (export taxes on sawnwood and rattan, but not on plywood or furniture) provided further advantages for finished wood products. The capital subsidies for mills have been discontinued. The export duties on sawnwood and rattan were to be reduced as part of the IMF reform package in 1998, making export duties uniform across all wood processing industries.

The producers' associations for plywood (APKINDO) and molding (ISA) added their own deviations from competitive market behavior. These associations used marketing boards to allocate export quotas before the reforms of 1998. Membership in APKINDO was compulsory for plywood mills. Some argue that compulsory membership was a means of regulating entry to the industry—but it is also true that the plywood industry was characterized by excess capacity.

The regional marketing boards for each association arranged the international sales at each destination and allocated shares of these sales to mills in Indonesia. These marketing boards aggressively pursued market share. They were willing to accept short-term losses (passed on to the mills) in order to establish longer-term market position. One individual, an authority within APKINDO, owns some of the larger plymills, and the shipping lines and the shipping insurance company as well. As a courtesy, all APKINDO business was conducted with his ships and his insurance company before the reforms of 1998.

The system of regional marketing boards to control export allocations ended in 1998 as a result of the financial crisis and the World Bank-IMF conditions for financial assistance. Some international buyers now deal directly with mills and the marketing boards have been dissolved—although APKINDO is quietly arranging price agreements in key markets. Export licenses are not a problem for plymills, as most already had this authority before 1998.

Exports are not as important for sawnwood. The high export tax (until 1998) and strong local demand meant that most of this product was consumed in domestic construction. Nevertheless, this industry had a domestic marketing board and its industry association (Indonesian Sawmillers Association, or ISA) was chaired by a key APKINDO member for a period. The ISA marketing boards were not as effective. (There are upward of 3,000 producers and untold numbers of consumers.) The ISA administration changed in 1998 and marketing boards no longer attempt to regulate domestic markets for sawnwood.

The pulp and paper industry association (APKI) has no history of marketing boards or other domestic or export controls. However, the government has a stated policy of improving its market share of the world pulp and paper industry.

Land Conversion Policy

The conversion of forestland to estate crops has not been constrained by either government or industrial infrastructure to control the market. Licenses for forest conversion are obtained upon request. Both large and small estate operations have obtained licenses, but the area allocated to large-scale commercial operations has increased significantly in recent years. The current policies also permit the same company to operate an HPH, an HTI, and an estate crop plantation at the same time.

Government regulations stipulate that estate crop plantations be established on conversion forest areas. However, the existing rules of land allocation and forest classification are widely ignored. The process by which forest areas are declared conversion forest is neither serious nor transparent. The problem is perpetuated by the lack of clarity about boundaries between conversion and non-conversion forests, and variable definitions of what constitutes a conversion forest.

Since the late 1960s, the government has vigorously promoted oil palm estates on converted lands. The strategic importance of oil palm (foreign exchange earnings, domestic cooking oil supply, and rural labor absorption) has made the sector a top priority for the government (Casson 1999). Several schemes providing incentives to domestic and international investors have facilitated the growth of the sector. Initial development, starting in 1968, focused on state-owned companies (*Perseoran Terbatas Perkebunan*, or PTPs). Support for smallholders started in 1978 (through the *Perkebunan Inti Rakyat* or the Nucleus Estate and Smallholder Scheme, PIR/NES). Since then, the PIR-trans (PIR transmigration program), from 1986–94, and the KKPA (Prime Cooperative Credit for Members) scheme, 1995–98, have supported smallholder oil palm development. The encouragement of large-scale private estates started in 1986 through access to credit at concessional rates for estate development and crushing facilities (Larson 1996). Conglomerates now dominate the sector, with eight of them owning land banks totaling 2.1 million ha out of 5.4 million ha officially allocated for oil palm.

Since the financial crisis in 1997, there have been a number of changes in policy that are likely to affect the rate of conversion of forests (Casson 1999). These include reduction of export taxes on palm oil, liberaliza-

tion of foreign investment in the sector, revoking of conversion permits for failure to develop the estates, limitations on plantations sizes, granting permission to state forestry companies to convert 30 percent of their concessions to oil palm (inside production forest boundaries), increased autonomy of local administration through decentralized decision making and increased budgetary allocations, and a new regulation that permits plantation companies to establish tree crops along with timber plantations in non-productive production forests formerly allocated to logging companies.

The second use of converted forestland is for settlement by transmigrants. Fifty-nine percent of Indonesia's 195 million population (in 1995) is concentrated on Java, while the outer islands contain 93 percent of the nation's land area. Therefore, the outer islands are sources of land for the denser populations of Java. They attract younger Indonesians, especially those from Java's denser regions. In fact, Indonesia has experienced a net migration outflow from Java to the outer islands.

The government has three programs for encouraging transmigration. The first provides land, facilities, training, and financing for an initial period to acceptable applicants. Anyone can apply, and applications will be accepted until the annual financial budgets and land allocations for the program are exhausted. The second program is entirely dependent on voluntary action. Transmigrants in this category make all their own decisions and receive no government assistance. They must obtain permission from the Ministry of Transmigration and Shifting Cultivation for the land they settle. The third program occurs in association with the private sector. In this program, the MOFEC provides land for new settlers while forest plantations (HTI) guarantee employment. This program was designed to help plantations in less-settled regions attract labor for their forest operations. The ministry adds lands to this program upon its approval of requests from the plantations.

Many people have taken advantage of these programs, which also have their serious critics. The local criticisms of these programs have been that the lands allocated to transmigrants are generally of low quality for agriculture and that transmigration, by separating extended families, imposes heavy personal costs. These programs have also had significant negative impacts on indigenous forest dwellers and on the forests themselves. Transmigrants have resorted to unsustainable slash-and-burn practices, either for lack of adequate land, lack of appropriate agricultural skills, or poor soil productivity.

Community Participation

The highly centralized “top-down” management of the forest sector reflects the mindset of the New Order regime since it took over in 1966. This manner of operation allowed the state to get firm control over the country politically and economically and inevitably had negative consequences for many peoples, but perhaps most significantly for the poor who live in or near the forests. In Indonesia, as elsewhere in the developing world, the struggle for land and access to forest resources is not simply between the large-scale extraction companies (in forests and mining) and the poor, but has increasingly led to social and ethnic conflicts between different groups of the poor, particularly the transmigrants and the indigenous people.

Indonesia is home to a vast array of distinct cultures, each functioning under norms, rules, resource management strategies, and spiritual belief systems known collectively as *adat*. The actual size of the population of forest dwellers and adjacent communities dependent on the forest resource is not known. Estimates of direct forest-dependent peoples range from 1.5 million, based on a restricted definition of “isolated people” used by the Ministry of Social Affairs, to 65 million, including all forest-dependent peoples—indigenous people and transmigrants (World Bank 1994a). More recent estimates put the number of people directly and substantially dependent on forest resources for their livelihood at about 30 million (World Bank 1998), and the inhabitants of “forest villages” at 14.5 million (Muljadi, Fraser and Prodjosaputro 1998). Whatever the exact number, it is clear that a large proportion of the Indonesian population is directly dependent on the forest for its livelihood. As is well known, worldwide some of the poorest households are the most dependent on the forest; it is highly likely that most of the people relying on forests are also likely to be among the poorest in the society.

Adat has weakened in many regions because of pervasive government intervention, but in some regions, particularly the outer islands, it remains strong. Under the New Order regime, *adat* laws and institutions are recognized so long as they do not impede the state political or economic objectives (Barber 1997). The basic philosophy of the New Order state resisted diversity and denied the existence of distinct “indigenous peoples” with autonomous claims over territory or resources, or independent local systems of spiritual beliefs and political authority. Any attempts to emphasize diversity were perceived as subversive threats to national unity (Evers 1995).

The New Order considered the traditional swidden agricultural practices to be environmentally destructive, backward, and wasteful. Instead, the land was appropriated for redistribution or use of logging, commercial agriculture, and resettlement. The Indonesian Forestry Action Programme considered shifting cultivation a significant source of deforestation, although other research has shown that traditional practices can be sustainable (World Bank 1993b; Tomich et al. 1998).

Not surprisingly, the forest dwellers, indigenous peoples, and local communities have been disenfranchised and marginalized (World Bank 1993b). The Basic Forestry Law has adversely affected millions of people who had previously had access to timber, non-timber forest products, and swidden lands under the traditional systems of resource management. *Adat* rights were subordinated to those of the timber concessions: the communities and individuals could enjoy their *adat* rights so long as they did not disturb the functioning of large-scale timber or plantation concessions.

Increasingly, in addition to the large-scale commercial interests, the indigenous dwellers also had to contend with transmigrants for access to resources. As a result, conflicts between local communities and logging concessions, plantations, transmigrants, and other state-sponsored activities have become endemic throughout Indonesia (Barber 1997). It is only recently, since around the mid-1990s, however, that these conflicts have started to gain significantly greater attention than before. Earlier, the state was able to contain conflict and discontent through an efficient military and domestic security apparatus. With increasing resource scarcities, the conflicts have become more serious, and violence more widespread. The conflicts are not as localized anymore, and civil society has become increasingly more vocal. The social conflicts and violence have increased sharply in the last two years following the economic crisis, and the ensuing rise in poverty and the breakdown of law and order (Kartodihardjo 1999a).

The issues of *adat* rights and tenure are critical not only as basic human rights issues but also as a potentially useful system for the sustainable management of the remaining forests. And although the benefits of participation and consultations have been recognized for some time, the development of community participation or community forestry is still in its infancy (Sève 1999; Potter and Lee 1998). The Bank identified the importance of these issues and the need for local participation in its ESW in 1993. It was, however, optimistic that laws that had been just passed, recognizing community territorial rights, the rights

to cultural autonomy, and the priority accorded to historically vulnerable communities, would alter the legal environment within which the traditional rights to land and resources were viewed (World Bank 1993b: 51).¹⁷ The laws also established the communities' rights to be consulted and involved in the planning and implementation of new activities affecting their historic areas.

The ambiguous legal status of the forest-dwelling communities, however, has persisted, largely as a result of the government's own conflicting decrees of 1993 (Sève 1999). The decrees required a formal recognition of the preexistence of traditional rights by local governments, a difficult process and rarely granted. Further, the commercial use of forest products by these communities was explicitly restricted. Reflecting the New Order biases mentioned earlier, shifting cultivators were defined as destroyers of the environment and of local and national development, and were to be resettled outside forest areas.¹⁸

With continuing problems, in 1995 the Bank's sector work again called for increased participation in forest management, consultations with local communities prior to commercial activities, revenue-sharing for regenerating activities, improvements to the Bina Desa scheme, and increased stewardship roles for local communities. It also recommended that the government sanction changes in the forestry act and other legislation and regulations to facilitate titling of forest dwelling and adjacent communities in forestland (World Bank 1995: 21). So far, however, little progress has been made on these issues.

There have also been numerous attempts by foreign-funded projects, research institutes, and NGOs at implementing community-based forest management using various approaches. Most of these projects, including several past and recent schemes by the government, have been concerned with tree planting. While these projects have yielded important lessons, they are essentially isolated cases on a very small scale and often under special legal status provided by specific project agreements. Overall, few programs have been officially established, and most innovative projects are generally viewed as being marginal to the agendas of central or local governments.

As a central issue with the existing "rules of the game," community participation and *adat* rights have received considerable attention in the current reform era. Efforts are underway to improve the government's community forestry program and to draft an *adat* decree to secure the rights of traditional communities (Fay and Sirait 1999, cited in Suderlin 1999). These, together with the recent "Guidelines to Resolve *Adat* Com-

munal Rights Conflicts” issued by the Ministry of Lands and the new decentralization law are positive developments. However, little real progress has been achieved so far, with the new forestry law, ratified in September 1999, still failing to recognize the rights of forest-dwelling people. The process by which the new law was drafted has also come under heavy criticism for not being transparent (Sunderlin 1999).

At the same time, recent experience also raises some concerns. The equity benefits of community participation, secure tenurial rights, and decentralized decision making are well founded, yet by themselves they may not guarantee sustainable forest management. Faced with economic hardships, especially in the aftermath of the financial crisis, impoverished populations are increasingly relying on extracting forest resources. The political imperatives to raise incomes and promote regional growth make local administrations eager to promote conversion of forests to plantations (Potter and Lee 1998). Strong financial incentives to convert natural forests to estate crop plantations or other uses, an increasing number of non-indigenous local communities following non-traditional agricultural practices, rising population pressures, and poor governance are likely to outweigh the benefits associated with traditional swidden practices. There is a need for considerably greater amount of stakeholder consultations and discussions of innovative ways to achieve the goals of environmental sustainability and economic development simultaneously. The Bank has adopted community participation and broader stakeholder consultations as an integral part of its strategy for the forest sector, as discussed below. But lessons from other country case studies, notably Brazil and China, clearly indicate that to reduce the rate of deforestation may require compensation to the local communities and governments to retain their forests intact.

Certification

Forest certification, or “ecolabeling,” is a relatively new concept that emerged in the 1990s to better address the issue of improving the environmental and ecological quality of the world’s forests while maintaining a sustainable level of production. While the concept of certification is appealing, and likely to get increasingly important as environmental consciousness continues to grow, several issues are currently being debated concerning the acceptable definition of sustainability, and the economic and equity implications of forest certification.

Indonesia is among the few countries that have established a national certifying body, the Indonesian Ecolabeling Institute (the *Lambaga*

Ekolabel Indonesia, or LEI). This followed the government commitment to comply with the ITTO guidelines for sustainable management of forests by 2000, and the Bank contributed by providing a start-up grant for LEI. While both of these are welcome moves, in reality they have had little influence thus far in moving Indonesia toward sustainable forest management.

LEI has taken important steps toward designing an effective and credible certification system. It has sought the participation of stakeholders to improve the implementation and effectiveness of its domestic program, while it has sought alliances with international bodies (e.g., the Forest Stewardship Council to facilitate a Joint Certification Program, trade and industry associations in importing countries, and the WWF-sponsored Buyers Group of Certified Wood Products). The effectiveness of certification in modifying logging practices in Indonesia is likely to be limited for some time. The limited institutional and human capacity of LEI is clearly not equal to the challenge it faces in Indonesia. Several constraints need to be addressed before local certification can be considered a reasonable tool for promoting sustainable forest management. One is the need to build institutional and human capacity in Indonesia, which is going to be gradual process and will likely take several years. More important is the problem of the general level of governance, in particular corruption. Both of these constraints are likely to take time to resolve, and while local certification is a potentially long-term solution, in the short and medium term it offers little hope.

One possibility is to use external or international certifying agencies. However, even if proper certification apparatus could be established, and implementation and governance issues resolved, questions remain about the effectiveness of certification if there is limited or no demand from export-destined countries, especially the low-income countries, which may not find the more expensive certified forest products very appealing. For Indonesia, another important issue would be the equity implications of such a move. Certification is a costly process and is likely to hit the smaller producers harder than large conglomerates. At the same time, certification could have the same effect as non-tariff trade barriers, reducing demand and depressing forest product prices and thereby helping accelerate the process of conversion of forests to other uses.



4

Pressures on Forests¹⁹

Industrial Demand

Indonesia's four major log-consuming industries are the sawmill industry (for lumber or sawn timber), molding and building components, plywood and particleboard, and pulp and paper.

With the ban on log exports since 1985, replaced by prohibitive taxes in the early 1990s, most of the timber was processed domestically into pulp and paper, plywood, sawnwood, chipwood, and other products. The impact of the policies promoting these industries on forests can be gauged by considering their log consumption. The current capacity of the industry is estimated at 53.4 million m³, the estimated 1996 log consumption was 44.57 million m³, and the official estimate of log supply for 1996/97 was 26 million m³ (Barr 1999). Based on information available in 1995, the Bank estimated the sustainable level of log harvest at that time to be about 22 million m³ in 1995 (World Bank 1995). Considering the current, higher rates of deforestation, the sustainable level is likely to be lower than this estimate. This unsustainable volume of extraction highlights two key issues. One is the impact of poor commercial logging practices, which reflect the current policies governing the logging and processing industry. The second is the extent of illegal logging commonly attributed to filling the difference between estimated consumption and official records of log supply. While some of this was probably supplied by smallholder farmers (e.g., from agro-forests and trees from their own land, not on the forest estates), a substantial amount

of it represents illegal logging activity.²⁰ Recent research indicates the illegal supply of logs from natural forests is about equal to the legal supply (ITFMP 1999). It is widely perceived that a large share of the illegal supply originates from the HPH and HTI concessions (including current as well as former concessions), reflecting the poor enforcement of existing regulations and rule of law. More recently, significant illegal logging has been documented in national parks, conservation areas, and protected forests (EIA/Telepak 1999; Merrill and Effendi 1999).

Sawmills, Molding, and Building Components

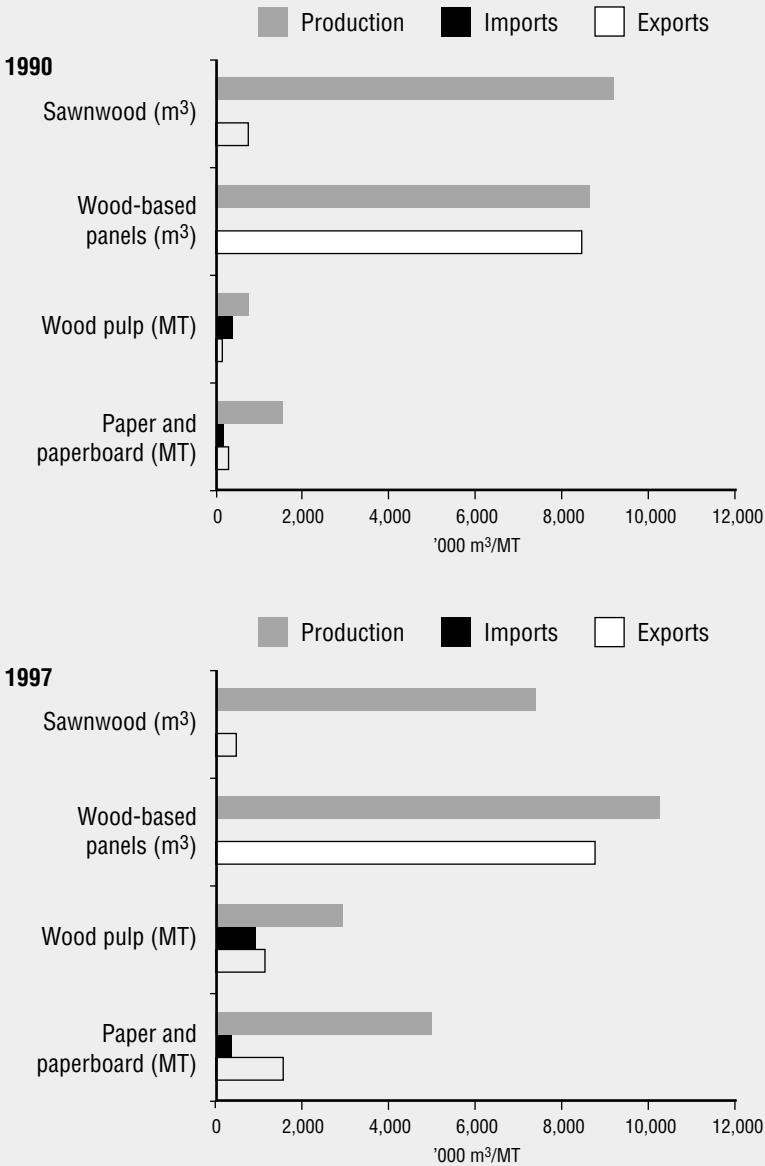
The great expansion in both the sawmill and plywood industries occurred in the decade preceding the financial crisis. The sawmill industry has the greatest number of establishments of any of the forest products industries. Its numbers range upward of 3,000 in various estimates. Official BPS statistics account for the 670 sawmills in 1996 that employed more than five workers each. The numerous uncounted smaller sawmills are indicative of how little capital is required to get started in this industry. Small sawmills are mobile and easily shifted in and out of operation as local resource supplies and economic conditions change. The fluid nature of sawmill operations is also reflected in the large difference between permitted and installed capacity in the industry. Most of the production of these two industries was consumed locally to support the construction industry. Indonesia is one of the five largest producers of tropical sawnwood. Over 80 percent of its production was consumed in domestic markets in the 1990–97 period (figure 4.1).

Plywood

Since the mid-1980s, plywood has been the dominant wood products industry in Indonesia. The log export ban ensured a cheap source of raw material, and an export marketing cartel aggressively pursued overseas markets. The total wood consumption of the industry is three times that of the sawmill and molding industries combined. It employs twice as many workers, and at a higher average wage. Approximately 10 percent of Indonesia's plywood production is consumed in domestic markets, and the rest is exported (figure 4.1).

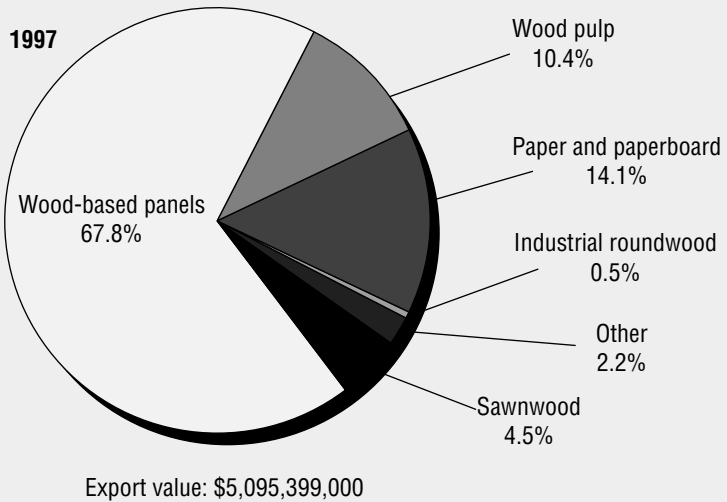
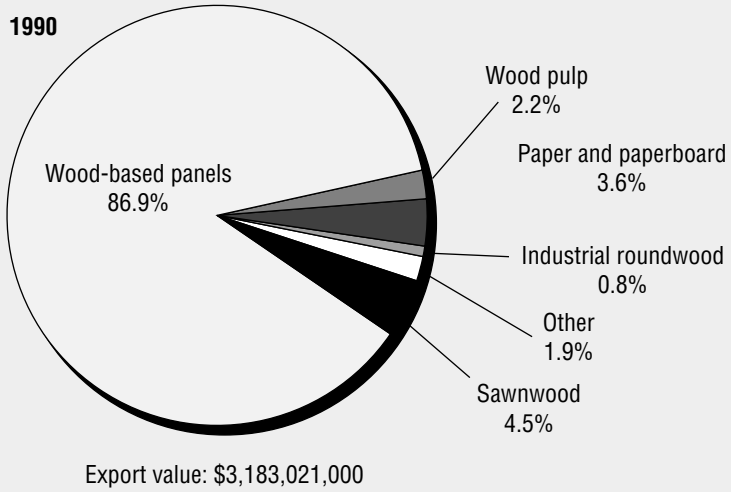
Until 1997, the plywood industry's export earnings dominated the sector (figure 4.2), with Indonesia producing twice the volume of the world's second-largest producer of tropical plywood (Malaysia or Japan) and exports more than twice as much as its nearest geographical competitor (Malaysia). Unofficial estimates indicate that plywood may

Figure 4.1. Change in Production, Imports, and Exports

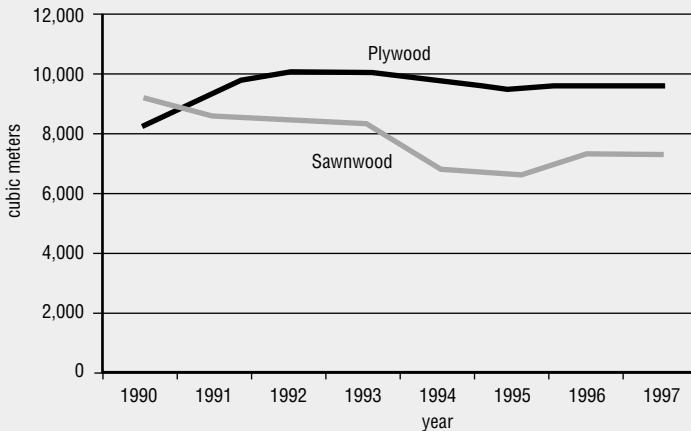


Source: FAO.

Figure 4.2. Exports of Selected Wood and Pulp Products



Source: FAO.

Figure 4.3. Plywood and Sawnwood Production, 1990–97

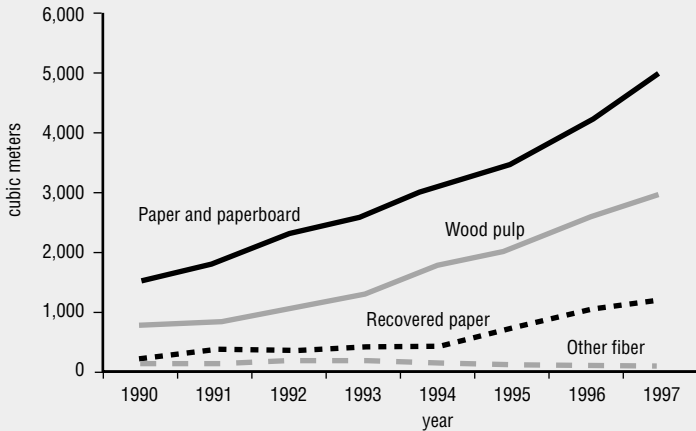
Source: FAO.

no longer be the highest foreign exchange earner among wood products, having been replaced by pulp and paper. Trends in total production indicate that until 1997 plywood production had stagnated since about 1991, although it remained very high (figure 4.3). This slowdown in growth is attributed largely to increasing scarcity of logs.

Pulp and Paper

Pulp and paper is a high-fixed-cost industry. Its production is concentrated at fewer locations than sawmills or plywood, and it employs fewer workers than sawmills or plywood. It was second to plywood in its value-added contribution to the economy in 1996—and it is growing rapidly. The pulp and paper industry expanded rapidly in the 1990s. Installed capacity doubled from 1990 to 1997 and output of wood pulp and paper and paperboard has almost tripled (figure 4.4). Although the major share of the output of pulp and paper products is for domestic consumption, the value of exports has increased almost five times (figure 4.2). The increase in paper production is expected to continue as East Asia recovers from its financial crisis because paper consumption is income elastic. The demands for paper and paper products grow with economic development.

The high-fixed-cost and immobile natures of pulp and paper mills make their managers more concerned with sustainable resource supplies than, say sawmills and plymills. These features, and the rapidly

Figure 4.4. Production Trends in Pulp and Paper Sector, 1990–97

Source: FAO.

growing demand for their products, make the pulp and paper industry the leading commercial force for sustainable forest plantations. However, in practice, the rapid expansion in capacity and the need to operate at high levels of capacity to maintain profitability increasingly have forced the mills to rely on natural forests for raw materials. This has put significant pressure on the forests, while the availability of cheap fiber supplies through illegal logging has been a strong disincentive to invest in pulp plantations. The pace of expansion of the pulp and paper mills is rapidly become the most significant threat to natural forest degradation, especially since the demand for fiber creates added incentives to clear-cut logged-over forest lands.

Forest Concessions and Plantations

Forest extraction and the conversion of forest land for other uses have been at the heart of Indonesia's modernization strategy. In addition to the direct pressure from the heavy demand placed on the forest resources by the processing sector, a set of complex intersectoral and macroeconomic issues have had indirect effects. The indirect effects, however, have been largely ignored in most analytical work on Indonesia until recently, including by the Bank in its macroeconomic, agricultural, and forest ESW.

HPH operations, among other factors, have been the dominant cause of forest degradation (Kartodihardjo and Supriono 1998). As of June 1998, out of the total production and conversion forests, 69.4 million

had been allocated to HPH, 4.7 million reserved for HTI, and three million for large-scale plantation development. Despite a clear policy on where HPH and HTI can be sited, there have been numerous cases of encroachment, including into protected and conservation forests. Those responsible have included large-scale HPH and HTI holders, including some state-owned enterprises, and smallholders. For example, about 22 percent of the total area allocated for HTI, or one million ha, is in primary natural forest. Meanwhile, several protection and conservation forest areas, *for which no change in function is permitted*, have been encroached by plantation activities, by timber plantations, and by shifting cultivation degradation (Kartodihardjo and Supriono 1998).

By June 1998, forest degradation resulting from HPH operations had reached 16.57 million (Kartodihardjo and Supriono 1998). The government has stated that it will rehabilitate, change to different status or function, and reserve this area for other purposes. But there also appears to be a change in the forest ministry's management of the concessions since the economic crisis and the IMF and Bank adjustment packages. Of the 35.5 million ha (nearly half of the area reserved for concessions) managed by 359 HPH, whose first 20-year term had expired, the rights of only 96 HPH, with a total operational area of 14.3 million ha (about a quarter of the total), had been extended to the second term. Of the revoked concessions, 33 for 3.3 million ha have been awarded to other concessionaires, while the rest (9.5 million ha) were so poorly managed as to need rehabilitation.²¹ These have been given to the *Inhutanis*.

The reduction in the number of HPHs, a result of the poor performance of concessionaires, could be interpreted as suggesting that the relative importance of concessions may be declining, evidently a result of resource scarcity in traditional logging areas such as Kalimantan and Sumatra. However, MOFEC appears to be shifting its focus toward opening new areas such as Irian Jaya. Between 1987 and 1997, the MOFEC allocated 40 HPHs covering 9.7 million ha in Irian Jaya alone. More recently, the Indonesian selective logging and planting system (*Tebang Pilih Tanam Indonesia*, or TPTI) has been weakened, which is likely to lead to even less prudent management practices by HPHs.

While the HPH system continues to be a major force affecting forests, the plantation sector is significantly adding to the pressures on forests. This added pressure reflects the increasing demand from the pulp and paper industries, ostensibly for timber plantations, and from the palm oil processing industry. In response to a slow down, and perhaps even a decline in the growth of plywood production, there appears to be a change

in MOFEC strategy, a result of the desire to maintain a steady, and cheap, supply of fiber to the pulp and paper processing sector. At the same time, there is increasing allocation of forest areas for conversion, and the *Inhutani's* or state companies are reportedly looking for private sector partners to allow log extraction on lands intended for "rehabilitation," often with the objective of eventually establishing oil palm plantations.

The growing importance of conversion is evident from the increasing volumes of wood produced through the Wood Utilization Permit (*Izin Pemanfaatan Kayu*, or IPK), which permits clear-cutting logged-over or areas designated by the MOFEC for conversion (Barr 1999b). The IPK requires bank guarantees for royalties and the reforestation fee for the full amount of the productivity plan and contributions to the government's funds for human resource development and development of science and technology. The IPK has become popular because of its various incentives: it allows non-selective harvesting techniques, there are minimal royalties, and no restoration fee. In addition, as part of its policy to promote plantations, the government has also provided subsidy for HTI. This policy has been very popular with the private companies, who have used the HTI subsidies and the IPK advantages, but have generally failed to comply with the key element of the HTI permit: to establish tree plantations. The record of planting has been very poor, with only 23 percent of the planned area being realized for the period 1990–97 (Kartodihardjo and Supriono 1998). This in turn has promoted further illegal logging, as the pulp and paper industry continues to search for raw material from standing natural forests.

The 1998 government reorganization of the Ministries of Forestry and Agriculture to give the mandate for estate crops development to the new MOFEC suggests an apparent change in the government's strategy. One view of this change is that it makes the de facto policy of forestland conversion de jure, with potentially damaging consequences for forests. For example, the policy of integrating timber and tree crop plantation development within production forest areas, and permitting a single company to obtain HPH, HTI, and tree crop plantation rights has created significant moral hazard. Under the current operating conditions, a company can degrade the area under its concession, have it converted to an HTI, and further reap the benefits of both the HTI subsidy and IPK. An alternative view is that the previous arrangement did not prevent land conversion anyway. Given adequate staffing and appropriate institutional arrangements, the reorganization may provide an opportunity to improve the conditions of forests by ensuring a consistent application of regulations.

Indonesia has been the lowest cost producer of palm oil in the world and this comparative advantage has been reinforced by the devaluation as it has also increased the profitability of all exports from Indonesia. The government's strategy to promote investment in oil palm, both for exports and domestic processing, has led to a strong demand from private investors for land conversion, often from natural forests.²² Responding to the Indonesian government's encouragement, Malaysian investors have been able to acquire about 1.3 million ha of land banks for oil palm development (Casson 1999). Kartodihardjo and Supriono (1998) report the Minister of Forests and Estate Crop Development as reporting that 330,000 ha of forest is being converted annually to oil palm plantations. In 1997, the government's plans were to double the area under oil palm from the 5.5 million ha by 2000.

Despite the incentives, however, as in the case of timber plantations, the rate of establishment of oil palm plantations is also very low (Casson 1999). Given that many of the companies that have shown an interest in oil palm plantations are also logging companies, it is evident that at least in the first instance, the investors are more interested in the timber that can be harvested from the plantation sites. Those genuinely interested in oil palm are likely to target Sumatra because of its better soils and infrastructure. However, with the decline in the area of conversion forest, increased demand for land has put pressure on the remaining natural forest for tree crop development. In particular, Sumatra and Kalimantan are showing deficits (in terms of planned conversion area and the area that is available), and the conversion forests in Maluku and Irian Jaya are increasingly under pressure.²³ The government has recently tried to rectify this situation by revoking licenses for non-establishment and placing a temporary moratorium on new applications, but there are already pending applications for about 4.5 million ha. And it is highly likely that areas affected by forest fires will eventually be designated as conversion forests (Casson 1999). Ironically, this may end up rewarding the perpetrators of the forest fires, as it is widely believed that the large-scale oil palm interests were responsible for the fires to begin with.

The pressures for forest conversion have accelerated in other ways since the economic crisis, apart from the economic profitability of plantation crops, and the declining quality of forest land which makes conversion to tree crops attractive. The problems brought about by the crisis and other external factors include rising urban unemployment, reduced access to credit and agricultural inputs promoting extensive agriculture, the increased burning of land as the cheapest way to clear

it, inflows of foreign investment for oil palm plantations, and government imperatives to increase foreign exchange earnings. This has resulted in the increased conversion of land to quicker-payoff tree crops relative to sustainably managing forests, and unrelated but more frequent droughts leading to increased fire outbreaks.

Consumptive Uses of the Forest: Rural Households and Non-Timber Forest Products

Rural households rely on the forest for a part of their own consumption of non-timber forest products (NTFP) like fuelwood, bamboo, and rattan. Some of these products form the basis of domestic production activities, resulting in market sales and personal income. Some even make their way into international markets.

Estimates of the level of direct and final household use of the forest are difficult to obtain. Approximately 63 percent of Indonesia's population is rural and a large proportion of rural households rely on the forest for some of their consumption of fruits and nuts, meat (from hunting), wood for fuel and construction, and many other uncultivated or minimally managed products. It is believed that at least 30 million people are highly dependent on forest resources for their basic livelihood (World Bank 1998).

Furthermore, forests act as an insurance policy for rural households, which increase their reliance on the forest in times of economic hardship. For example, ICRAF's Alternatives to Slash-and-Burn research project anticipates that the financial crisis of 1997 and the collapse of Indonesia's currency may increase local reliance on slash-and-burn forest conversion and cultivation, and that the financial crisis has increased the local profitability of many tree-based agricultural systems—at least in Sumatra (Tomich et al. 1998).

Most local exchange of NTFPs does not enter the national accounts, and undoubtedly most of the goods are consumed locally. The Forest Utilization Statistical Yearbook and the national accounts do provide measures of the smaller share of these goods that are produced for more formal regional, national, and even export markets. These marketed NTFPs include turpentine, a variety of specialized products made from rattan, various handicrafts made from wood, plus some other products.

Table A.6 (Annex A) shows the forest utilization statistics for eight NTFPs from 1989 to 1998. Table A.7 shows the Central Bureau of Statistics accounts for 1996 for 10 ISIC industries such as wood furniture and bamboo/rattan kitchen utensils. Small, family-operated establishments dominate even the formal market component of these indus-

tries. These establishments employed 192,000 workers in 1996, produced products valued at Rp 2,905 million (US\$1.2 million at the 1996 exchange of Rp 2,400=US\$1) and earned Rp 871 billion (US\$363 million) in foreign exchange. These numbers are small compared to Indonesia's 1996 domestic product of Rp 532 trillion (US\$222 billion). We must recall, however, that they are underestimates. Even these underestimates are critical for the livelihood of many rural households where per capita annual income was only Rp 600,000 (US\$250) in 1996.

Forest Fires

One of the most significant series of environmental disasters in recent history—the forest fires in Sumatra and Kalimantan in 1997, and East Kalimantan in 1998—affected a vast area believed to be at least five million ha in Kalimantan alone (Casson 1999). As to how devastating these fires were on the ground—whether they were complete or controlled, local, and light—different reports take different views (Dennis 1999).

The fires have been attributed to a number of sources, but there is no doubt that almost all were manmade. Fires are often set to settle scores, especially conflicts involving land tenure. As the least-expensive means of clearing land, they are widely used to prepare sites for replanting as either forest plantations or estate crops. To worsen conditions, El Niño made for unusually dry weather in 1997. It increased the effect of fire and its impact on regional air pollution. The smoke from the Kalimantan fires affected cities as far away as Singapore. The effect of the fire and the resulting air pollution on overall regional welfare has been recently assessed at approximately US\$4.5 billion (EEPSEA/WWF 1998).

Given the significance of the Indonesian forests and their biodiversity, and the scale of the devastation in economic, ecological, and health terms, the forest fires commanded a lot of international and domestic attention. It was hoped that as a result there would be an increase in MOFEC's powers, hitherto limited, for determining the real use of land, and improvement in the governance of the sector. However, events that followed indicate the influence that large businesses have over the Indonesian forest sector through their connections with the central and regional administrations. In response to the disaster, the former Minister of Forestry, widely recognized by environmentalists for his forward thinking and tough stance toward exploitative business practices, released the names of 176 plantation, timber and construction companies, and transmigration schemes believed to be responsible for large-

scale burning. Of these, 133 were oil palm companies (Wakker 1998). Despite the publicity surrounding the disaster, however, the number of companies on the list was reduced to 30. IPKs of 66 companies were temporarily suspended and then restored, no logging company had its concession revoked and there were no public investigations. The companies essentially went unscathed (Potter and Lee 1998). And it is likely that once the political and economic situation improves, oil palm companies will return to establish further plantations on the degraded lands. The government has also indicated that the burned land would eventually be allocated for conversion (Casson 1999).

The Impact of the Financial Crisis of 1997

The East Asian financial crisis hit Indonesia in July 1997. Indonesia's currency depreciated approximately 80 percent in the four months following, and has since not recovered much. The immediate impact of the depreciation, however, did not confer advantage in international markets because Indonesia's major trading partners (especially Japan) also suffered from the financial crisis.

Initially, the decline in plywood exports relieved pressure on forests. Soon (around April 1998), however, the demand from China and other regions kicked in for plywood, and the continued exports of pulp and paper have increased the pressure on forests. Even before the crisis, the plywood industry faced supply difficulties because of excess capacity and declining log supplies, with forest fires adding to the problems. As a result, plywood producers are looking in more remote and inappropriate areas for timber. This is made worse by the breakdown of the already poor law and order situation, which has resulted in increased illegal logging and looting of forest resources with the continuing economic crisis (Kartodihardjo 1999a). Adding to the pressure is the demand for fuelwood, as other cooking fuels become more expensive.

Agriculture was seen as an important way to deal with the crisis (Sunderlin 1998): it is less dependent on the dollar economy and hence was expected to be less affected; it commands attention because of the political imperative to assure basic commodities; it helps absorb unemployed work force from the urban areas; it was seen as an important source for both saving foreign exchange (by substitution of costly rice, wheat and soy imports) and earning foreign exchange (as with other natural resource sectors).

The impact of the crisis itself was expected to put indirect pressure on forests through improved agricultural incentives. A shortage of capital

for inputs and an ineffective system of subsidies (which are reportedly being diverted away from poor smallholders to larger farmers or plantations) are expected to encourage extensive agriculture. The sources of this pressure are surmised as smallholders (including a reverse in the declining trend of shifting agriculture), large-scale plantations for oil palm and spontaneous forest clearing for cocoa, coffee, shrimp, rubber and pepper as economic forces make these crops attractive in the wake of the rupiah devaluation. The biggest threat was perceived to be from large-scale operators and the wealthier individual farmers who could undertake forest-clearing activities. Expansion of oil palm plantations often puts the “developers” in direct conflict with the forest communities, who are often displaced. The crisis was expected to add to the already rapid pace of expansion of oil palm estates and the conversion of forests (with a high risk of going well beyond the designated conversion forests and into protected and production forests).

The initial evidence suggested that the adverse impact on forests may not be as bad as anticipated (Angelsen and Resosudarmo 1999). More recent evidence suggests, however, that there has been a substantial increase in the frequency of forest clearing in the second year of the crisis (Sunderlin 1999). There has also been a pronounced shift in emphasis from shifting cultivation (mainly the production of food crops) toward the cultivation of permanent crops (especially tree crops). Different crops were impacted in different ways. Expansion of oil palm was checked by a decline in world price (as demand from other Asian countries fell), and government policies affecting crude oil palm exports. The government first banned such exports from November 1997 to April 1998, and subsequently imposed an export tax of 60 percent (reduced to 40 percent in January 1999). Thus, the domestic price has been relatively insulated from the exchange rate fluctuations, translating into less impact on oil palm expansion than anticipated. In addition to these “incentive” effects, the timber and oil palm companies have reduced their investments because of the limited funds available. Since forest conversion is a capital-intensive operation, preliminary evidence suggests that at least the large-scale operations may not have increased as much as expected as a result of the crisis.

As regards farming, those involved in export-oriented crops had mixed experiences. Cocoa producers benefited from the crisis. The producers of rubber, the largest smallholder cash crop, gained little as the crisis was accompanied by a fall in world prices (as a result of decline in demand for rubber and low oil prices, which affect the price of syn-

thetic rubber). The impacts on forests have also been varied by location and by crop (e.g., of coffee on North Sumatra conversion forests, and shrimp on South Sulawesi mangroves). The initial gains from a sharp increase in real prices, however, have been short-lived as the prices have drifted downwards to the pre-crisis levels. The net impact of the crisis on small farmers (whose level of food self-sufficiency is low) is currently believed to be negative, with food prices increasing significantly and the competitive advantage of export crops eroding with a strengthening rupiah (Angelsen and Resosudarmo 1999).

The impact on forests has been varied across farmer types. Small, generally subsistence farmers lack the resources (either capital or labor) to open a new swidden field. The groups that were able to take advantage of the opportunities from the crisis were the relatively better-off farmers, immigrants with capital and urban entrepreneurs who were able to finance forest conversion to export crops.

The level of urban-rural migration has not been as large as anticipated, and the related impacts are believed to be low. The indirect impact of other government activities (transmigration, infrastructure development, mining) on forests has also likely been limited because of funds shortages (although the shortages have been offset somewhat by donor and IMF funds).

Need for Reforms

Forest policy reform is essentially a political issue (Ross 1996, World Bank 1993b). Contrary to its publicly declared positions, the government has viewed forests as assets to be liquidated to help economic growth and diversify the economy. Forest resources have been undervalued, ostensibly to promote domestic “value added,” generating enormous economic rents. At the same time, rent capture has been kept low, and forest management practices and policies have been governed by political and patron-client interests.

Before the financial crisis and the change in Indonesia’s central government, the key domestic actors in the forest sector were doing well under the existing rules and with the benefit of a stable economic and policy environment. The leading member of the forest industry was a close friend of the president. He easily could obtain hearing for any policy change he desired. Several members of the president’s family were directly involved with timber conglomerates, making it personally very profitable to ensure that the industry’s interests were well served by official policy. MOFEC was well financed, largely through the reforesta-

tion fund created from revenues from DR. The army received benefits of unidentified magnitude from forest concessions managed by regional commanders and largely off the books with respect to MOFEC or Ministry of Finance accounting. The MOFEC and BAPPENAS (the National Planning Bureau) disagree over the allocation of the revenues from the DR, whose funds have often been used for non-reforestation purposes, even for non-forest purposes. The ministry relies on its current control over these funds for its regular operation, and the government has generally used these funds for various political purposes. BAPPENAS prefers to allocate these funds to the central treasury. Otherwise, the domestic incentives for policy reform were limited.

Indonesian smallholders, local communities, and indigenous populations were largely left out of the political and policymaking process. They have received little benefit from the lands they have historically occupied. Many local groups and some environmental NGOs expressed their unhappiness with decisions regarding forests, and some were quite vocal. Nevertheless, despite the increasing level of complaints and demonstrations, civil society has had little effect on forest policy or management decisions.

This means that the arguments for policy reform had to come from external sources. In light of their past experience with implementation in the forest sector, most donors stayed out of the sector since the mid-1980s. Some donors with forest sector interests did take up technical advisory roles, but they have generally tended to stay away from policy advice and have not actively pushed for policy reforms. The World Bank, however, remained engaged through the early 1990s, breaking ranks with other donors in the sector. This also left the Bank as a major actor pushing for policy and institutional reforms, with limited interactions with other donors through the consultative group meetings. Many of the donors feel, however, that the Bank has largely been working in isolation, with little or no consultation on key policies or reform areas. There has been a change following the recent events, with the donors showing significantly greater unanimity in calling for reforms. In the most recent meeting, the consultative group has strongly endorsed a focus on forest reforms.

Sustainable Forest Management

Given the state and the pace of depletion of Indonesian forests, the focus of the Bank's policy advice since early 1990s has been on sustainable forest management. It has specifically targeted production forestry

to bring it under control, moving the forest sector toward the proper valuation, albeit in a market sense, of the forest resources. For this, the Bank has called for removing policy distortions that drive a wedge between world prices and domestic prices of logs. The basic argument is to provide appropriate incentives for economic efficiency, sustainable management of standing forests, and for plantations to substitute for natural forests.

Among the needed reforms, several observers other than the World Bank have noted the need for improving the concession management system (as noted in Sunderlin and Resosudarmo 1996). The reforms, among others, have included:

- Raising royalty fees and government rent capture (Gray and Soetrisno 1990; Ascher 1993; D'Silva and Appanah 1993; Ramli and Ahmad 1993; Thiele 1994; Ahmad 1995)
- Lengthening the concession cycles and increasing tenure security for concessionaires (D'Silva and Appanah 1993; Thiele 1994; Kartodihardjo and Supriono 1995)
- Enhancing competition in the allotment of concessions (Gray and Soetrisno 1990; Thiele 1994)
- Increasing area-based as compared to volume-based concession fees (Gray and Soetrisno 1990; Thiele 1994).

Governance Issues

The most challenging and perhaps the most difficult to address is the issue of illegal logging, which has the potential to render most policy recommendations ineffective.²⁴ Illegal logging manifests a deeper problem of governance. Poor governance is also at the heart of the recent forest fires, a phenomenon which is likely to repeat itself unless some fundamental changes are instituted with respect to enforcement of rules and regulations, corruption, and forest policy and management practices. To address these issues, both internal and external observers, including the Bank, have called for a comprehensive approach to forest management, including the important but complex issues of local participation, property rights, consultative process for decision making for resource use, revenue sharing, and greater decentralization and devolution of authority to regional and local governments (Barber 1997; Kartodihardjo 1999a; World Bank 1993b, 1995, 1998).

The Bank has viewed this as a complex process that will take time to resolve (World Bank 1998). It is also a process that has to be handled with utmost care, with full participation of all stakeholders, and undertaken in a fully transparent manner to ensure that the purposes of equity,

social justice, and national interest are properly served. Until the legal issues surrounding land titling can be resolved and new approaches in community participation developed, the Bank has argued for a more substantive involvement of local communities and provincial governments, through revenue sharing and direct participation, in the improved management and protection of forest resources.

Economics of Sustainable Forest Management (SFM)

Even if the current complex of forest policies could be rationalized, and the deep-rooted governance problems resolved, there remain some important issues that are less well understood but have important implications for managing forest resources. The first of these has to do with the strength of economic forces operating against SFM. Past results from many parts of the world indicate that while SFM by itself may be potentially viable under certain conditions (in purely financial terms), the results on its profitability relative to competing uses of land (such as conventional logging, agriculture, or tree crops) are mixed, but it is unlikely that SFM will be able to compete effectively.

Results specific to Indonesia are limited, but indicate that under the prevailing conditions SFM is unlikely to be able to compete with plantation crops, especially oil palm (Tomich et al. 1998; Scotland 1998; Kartodihardjo and Supriono 1998). These results, however, are based on the current valuation of timber, and not at the world price. Other results indicate that SFM may be profitable at world prices (World Bank 1995; Tomich et al. 1998). How SFM fares against alternative uses of land is not known at present; the results that exist (Scotland 1998; Kartodihardjo and Supriono 1998; World Bank 1995) on the rates of return are not comparable for various technical reasons and underlying assumptions. It is highly likely that the profitability of SFM will vary depending on the location and type of forests, but the bottom line is that not enough is known about the competitiveness of SFM, even under ideal policy circumstances.

These results are based on financial timber prices, and as such are the most relevant from a private investor's point of view. However, they do not fully value any of the remaining goods and services, or externalities, provided by forests, which are more relevant from a social (long-term individual, intergenerational, national, and international points of view). An appropriate economic analysis should incorporate all benefits, including biodiversity, environmental benefits (e.g., carbon values), and non-timber forest products, properly valued at their respective "economic"

prices. The full economic value may indeed fully justify SFM from a global social point of view, but at this point, this is also an important outstanding empirical research question.

In the tradeoffs among alternative uses, it is worth noting that for the environmental benefits, primarily carbon storage, tree-based systems are the “best bet” alternatives to natural forests (Tomich et al. 1998). However, the local timber industry is not likely to incorporate these “externalities,” positive or negative, as it responds to current financial pressures. These—combined with high discount rates, a result of myopic worldview, political uncertainty, and other factors—make it difficult to rely on the markets to ensure SFM. At the same time, they also make appropriate policy formation particularly important, and difficult.

The financial pressures under the current policy and governance environment are well illustrated by the poor rate of plantation establishment (23 percent), even under the HTI program meant for this purpose (Kartodihardjo and Supriono 1998). The underlying factors are well illustrated in the pulp and paper industry demand, which does not need to rely on long gestation hardwood trees. The pulp and paper industry is rapidly emerging as a major source to contend with for SFM (Barr 1999b). In the early 1990s, there was optimism that the change in the processing sector composition toward the pulp and paper industry was a positive move since the industry could profitably rely on fast-growing species as a cheap source of fiber (World Bank 1993b). However, the rapid expansion of installed mill capacity put increasing pressure on natural forests, including logged-over forests, for supply of fiber, and the investment in timber plantations has been minimal. One important reason is the availability of cheap fiber through illegal logging of natural forests; another important reason is that plantations are not profitable at the current domestic prices.

Given these significant financial pressures on the forests and the political-economy imperatives, as the issues of the full economic valuation of the forests are resolved, other important considerations will have to be confronted. In particular, if alternatives to natural forests are indeed more profitable, then the tradeoffs between local, national, and international interests in Indonesian forests will have to be managed. These would include non-market measures to provide the incentives to retain the current forests intact, for example, by compensating the owners of the resource, and local governments with interest in economic development, to forgo the benefits from the forests for the sake of national and global social benefit.



5

Implementation of the 1991 Forest Strategy in Indonesia

The Bank's 1991 Forest Strategy had two main objectives: to slow the alarmingly rapid rate of deforestation and to ensure adequate planting of new trees to meet the rapidly growing demand for fuelwood in the developing countries. The strategy promoted the conservation of natural forests and the sustainable development of managed forest resources. It aimed at supporting international efforts and legal instruments to promote forest conservation; giving assistance to government in policy reform, a multisectoral approach, and institutional strengthening; creating additional forest resources; and supporting initiatives that preserve intact forest areas. Based on these broad principles, the strategy envisaged a distinction between projects that are clearly environmentally protective (such as reforestation to protect watersheds) or which are oriented toward small farmers (e.g., farm and social forestry), and all other forestry operations (e.g., commercial plantations). The strategy considers the two types on their own social, economic, and environmental merits. Other lending operations would be conditional on governmental commitment to sustainable and conservation-oriented forestry. Such a commitment entails:

- Adopting policies, an institutional framework, and the measures to ensure conservation and sustainable use of existing forests and to promote more active participation of local people and the private sector (with proper incentives) in the long-term management of natural resources

- Adopting a comprehensive and environmentally sound forest conservation and development plan that contains a clear definition of the roles and rights of all the stakeholders
- Setting aside adequate compensatory preservation forests to maintain biodiversity and safeguard the interests of forest dwellers, specifically their rights of access to designated forest areas.

Where these conditions were present, the strategy anticipated Bank financing of projects. Where they were not, Bank forest sector support would be restricted to operations that were limited in scope, sequenced, and specifically targeted at helping countries meet the stated conditions.

Indonesia is one of the 20 countries identified in the 1991 Forest Strategy where tropical moist forests are seriously threatened and where the Bank should pay special attention to its forest sector lending.

From the discussion in the previous section, it is clear that deforestation in Indonesia has continued at a rapid rate in the 1990s, and in fact may have accelerated (even without the impact of the financial crisis). The Bank did not finance any new forest sector projects in Indonesia in the post-1991 period, because the Indonesian government did not want the Bank engaged in the forest sector. In fact, one of the only two forest projects that the Bank has financed in Indonesia, which started in 1990, was cancelled in 1994 when policy dialogue with the government broke down. The Bank did pursue a conservation agenda, however, through a joint World Bank-GEF project and through other projects with forest components.

The Bank clearly considered the policy environment in the Indonesian forest sector un conducive to the Bank having an impact on the sector. Had the Bank insisted on remaining engaged and continued to lend without a supportive environment in the country, it would likely have been blamed for supporting the forest sector in a situation where it was unable to at least slow the eventual outcomes. In some sense, therefore, it was beneficial for the Bank not to have been involved. However, questions arise: Is slowing down rates of deforestation a realistic objective in Indonesia? Could the Bank have contributed to improving management of the forest sector to meet the same growth objectives with less damage to the environment and with more equitable outcomes? Did the Bank do all that was possible and realistic within its limited leverage over Indonesia? Could it have done more, for example, in conserving biodiversity, ensuring the rights of communities (particularly of the rights of indigenous communities to land), or planting more trees? In short, were their errors of omission as well as commission?

To understand the reasons for the lack of the Bank's presence in Indonesian forests, it is important to understand the history of the Bank's involvement in Indonesia in matters that directly and indirectly affect forest outcomes, particularly the genesis and the outcomes of the forest projects financed by the Bank in 1988 and 1990 and the aborted third project.

Because the 1991 Forest Strategy promised a multisectoral approach to the forest sector, the review also examines the Bank's non-lending activities (the Bank's country and sector assistance strategies, ESW, policy dialogue, and technical assistance). It also examines lending activities at the macroeconomic level, and lending to activities outside the forest sector that have indirectly affected forests such as lending to agriculture and rural development, activities that affect levels of poverty, and those related to transport, power, and industry. An intersectoral approach is important because the two major issues the Bank has confronted in Indonesia's forests have been the rate and process of forest conversion and the role of the forest-related industries. Governance has been at the heart of both, although the economics of converting forests to alternative uses has also been critical, raising important questions regarding the tradeoffs between growth, equity, and environment.

Bank Involvement in the Indonesian Forest Sector

The OED review of the implementation of the Bank's 1991 Forest Strategy focuses on the post-1991 period, with comparative reference to the previous eight-year period, 1984–91, where necessary. In Indonesia, the Bank's direct assistance in the forest sector after 1991 has consisted almost entirely of policy dialogue rather than lending. The analysis that follows, therefore, concentrates on the Bank's strategy and services. It also distinguishes between the Bank's country assistance strategy and its sectoral assistance and development strategy. This distinction is important because, as was noted by the recent OED Country Assistance Review (CAR) for Indonesia, the two were not always consistent, sending mixed messages to the government (World Bank 1999).

The Bank's relationship with the government of Indonesia in the forest sector can be divided into three phases starting from 1988, when the Bank first became involved in the sector. There have been only two forest operations, which although conceived before 1991 (1988 and 1990) were implemented mostly after 1991. As discussed, the design of these projects was consistent with many aspects of the 1991 strategy. The period from 1988 to about 1994 can thus be considered the *lending phase*. After 1991, the Bank had no new forest lending projects,

although it did pursue the conservation agenda through a joint Bank-GEF project and a Natural Resource Management (NRM) project with a substantial regeneration and greening component.

The Bank's lending relationship ended in 1994, when the government decided not to borrow from external sources for forestry. It requested the cancellation of two key components of the second forest project, halted the preparation of a third forest project, and dropped the forest component of the NRM project. The cancelled components of both active projects were substantial proportions of their total costs. Other, previously financed projects, however, continued.

What followed was the *no-lending phase*, from 1995 onwards, during which the Bank maintained a presence in the sector through conservation activities, but even the policy dialogue came to a halt. With no activity in the sector, no economic and sector work was done—MOFEC was not interested in having the Bank involved in the sector in any substantive way.

The *reform and adjustment phase* started with the financial crisis and the inclusion of forest sector conditions in the IMF reform package to Indonesia, agreed to by the government through its letter of intent of January 1998. The IMF loan was followed by the Bank's first Policy Reform Support Loan (PRSL) in 1998 and a second PRSL in 1999. The Bank is currently involved in a broad-ranging consultative process that aims to develop a longer-term strategy for more equitable and sustainable development of the sector.

Bank's Assistance Strategy

The Bank's sector strategy for forests in Indonesia during the 1980s can be summarized as (World Bank sources):

- Strengthening nature conservation efforts by improving MOFEC implementation capacity
- Supporting watershed conservation efforts by developing and implementing production techniques consistent with environmental requirements and equitable for the poor rural farmers forced to encroach on critical watersheds
- Improving the sector information base and supporting policy improvements
- Strengthening forestry research
- Improving the quality of investment-planning and improving policy and investment implementation capacity through improved work force development.

In some ways, therefore the objectives that the Bank had articulated for the forest sector in Indonesia were consistent with the 1991 Forest Strategy that was to emerge.

This strategy was also consistent with the government's stated sector development objectives:

- Improving the management of natural forests and plantations to sustain production
- Increasing non-oil export revenues through increased exports of forest products
- Improving supply of industrial raw materials and forest products for local industry and local consumption
- Conserving watersheds
- Protecting and conserving wildlife, genetic resources, and scenic and recreation areas.

For the objectives to be mutually consistent, well-balanced implementation and management was required to address and minimize the tradeoffs. This called for considerable sensitivity to the environmental aspects of forest management; strong political will; institutional and human capacity; and a voice for all stakeholders in the policy decision-making and implementation. For example, improving the supply of raw materials for industry and exports of forest products required balancing the economic benefits against the costs to conservation of watersheds and biodiversity if key forested areas are degraded.

In its sectoral assistance strategy in the 1980s, the Bank allowed that as sectoral policies, investment planning and implementation capacities would improve, it would fund larger sectoral investments intended to increase forest production, improve sawmilling, improve wood distribution, and increase the local value added in the wood processing sector. The Bank's Country Assistance Strategy (CAS) was not explicitly concerned about the problems in the forest sector, nor did it take clear account of the tradeoffs between environmental impacts and a natural resource-based economic growth. The focus was very much on economic growth, population growth, and poverty reduction, and the cross-sectoral impacts of development policies on the environment were rarely considered. For example, most tree crop development projects focused on accrual of benefits from investments, but their impacts on forests were usually not analyzed. Following the conventional wisdom at the time, it was assumed that the primary threat to the forests was from smallholders, mostly shifting cultivators, with the impact of commercial logging and other government policies not fully appreciated.

During the 1990s, however, with new evidence and based on considerable high-quality ESW, the sectoral issues were further refined. Some cross-sectoral issues, particularly the land issues and siting of agricultural and tree crops interventions, were recognized by the Bank's agricultural ESW for their potential impacts (World Bank 1992), but a deeper analysis of the impact of pricing and other policies continued to be ignored. The focus of the forest sector strategy on a phased approach to policies, institutional development, and capacity building continued, with an increase in the focus on conservation.

The Bank's CAS increasingly focused on "second-generation" issues such as environmental sustainability. Through the 1990s, the focus on economic growth was maintained, but issues related to the management of forest sector started to be incorporated in the CAS as part of a general rise in concern about environmental sustainability.

In 1995, the Bank articulated the objectives of its CAS as (World Bank sources):

- Maintaining growth and macroeconomic stability
- Enhancing competitiveness
- Reducing poverty
- Enhancing human resource development
- Managing resources sustainably.

Following the increasing awareness of environmental problems growing out of international concerns and the government's own stated development concerns, as well as the findings from the Bank's ESW (World Bank 1994a), forests became a primary concern. The focus on forestry increased in the 1997 CAS, which even noted the lack of "transparency" and competitiveness in the natural resource development sectors (World Bank sources). The Bank, however, was reluctant to pursue the sensitive dialogue on forest-related policy and institutional issues until the financial crisis. This is consistent with the general finding of the OED CAR that the impact of good policy advice was diluted by ambivalence at the higher levels of Bank management (World Bank 1999).

The lack of a consistent approach to the sector can be judged by the Bank's continued funding of forest-related activities through tree crop components in agricultural projects, without coming to grips with the real issues in the forest sector. This piecemeal approach continued through the second phase of the Bank's relationship in the mid-1990s, when it was clear that the government was not willing to undertake the reforms necessary to improve the management of the forests. One example of ineffectiveness of this approach is emerging as an important

lesson from the joint Bank-GEF conservation project (Kerinci-Seblat Integrated Conservation Development Project). The project is conservation-oriented, targeted at the protection and management of the Kerinci-Seblat Park and its buffer zone area. It is one of more than a dozen such projects aimed at conserving biodiversity (almost all of the others are unofficial projects implemented and funded by other donors and NGOs). Through the project, the Bank sought to pursue its conservation objective; the project thus embodies the direct implementation of the 1991 strategy.

A recent assessment of the integrated conservation development programs (ICDPs) in Indonesia concludes that “very few ICDPs can realistically claim that biodiversity conservation has been or is likely to be significantly enhanced as a result of current or planned activities” (Wells et al. 1999: 2–3). The primary reason is that the threat is not from the pressures from local people, as is implicit in the projects’ rationale, but because of the failure to address the real issues of economic planning or land use decision making (the main threats are identified as coming from road construction, mining, logging concessions, and sponsored immigration). An important lesson emerging from the project is that without addressing the broader sectoral and cross-sectoral issues affecting the forest sector, a piecemeal approach is unlikely to be successful, irrespective of how laudable its objectives.

The Bank has also been weak in formulating its strategy and policy reform proposals in its partnerships with other stakeholders. Many donors feel that, until the arrival of the financial crisis, the Bank engaged in little substantive exchange on issues or coordination in activities and policy proposals. The Bank has also worked in isolation from civil society in Indonesia as well as from the national and international research community. These criticisms peaked immediately following the IMF reform package in 1998 (Dubash and Seymour 1999).

Following the initial conditions, and in the context of the following structural adjustment loans, the Bank has significantly modified its approach. It has demonstrated willingness to take more decisive action by engaging the government in a serious dialogue on forest management issues. It has also adopted a much more consultative and participatory approach to developing its future strategy and actions in the sector. These actions have elevated the forest sector as a national priority and elevated the sectoral strategy to the forefront of the Bank’s country assistance strategy. The details are discussed below in the section on structural adjustment and policy reform.

Lending Operations

A review of the Bank portfolio for the period 1984–99 appears in Annex C. The analysis is broken down into two periods: 1984–91 and 1992–99. The Bank had 79 operations up to 1991, with total commitments of US\$10.5 billion. During this period, the Bank approved two forest sector projects with total commitments of US\$54 million. This constituted about 0.5 percent of total Bank commitments to Indonesia. These projects were 3 percent of the Bank's worldwide forest sector portfolio of US\$1.86 billion, and 5 percent of the 41 projects financed. In addition, 27 projects could have had direct or indirect impact on the Indonesian forests.²⁵

After 1991, the Bank financed 84 projects with total commitments of US\$10.7 billion (6 percent of the Bank's worldwide lending portfolio). In the forest sector, the Bank had no direct lending. It did, however, finance seven projects with forest components. Two of these projects are not designated forest projects, but have either a major component (the Watershed Conservation Project, 1994, is classified as a natural resource management project, supporting greening and reforestation) or are directly related to forest management (the joint Bank-GEF biodiversity conservation project, the Kerinci-Seblat Integrated Conservation Development Project). The remaining five projects contain tree-crop components.

Pre-1991 Projects

Forest Projects

The two direct forest projects, Forestry Institutions and Conservation Projects (FICP I and FICP II), were approved within 18 months of each other in 1988 and 1990. The projects complemented each other, and their experience therefore should be considered together. Although the projects were designed before the Bank's 1991 Forest Strategy became effective, their objectives, design, and intent were consistent with the strategy.

FICP I was the Bank's first major intervention in the Indonesian forest sector, (a US\$63 million project with the Bank funding US\$34 million) and it hoped to address the critical institutional weaknesses in the forest sector (World Bank sources). FICP II (total cost at appraisal of US\$33.1 million and Bank commitment of US\$20 million, about US\$10.54 million was cancelled), was intended to improve the inspection and control function of forest operations (World Bank sources).

The objective of FICP I was to improve sectoral planning, management, and conservation efforts for ensuring the long-term contribution of the forest resources to the welfare of the Indonesian people. It had two components: (1) institutional strengthening through sectoral and policy studies, information generation, and research; and (2) conservation by rehabilitating terraced lands and associated conservation structures, planting trees on private lands, conservation of forests on state lands and management of five existing nature conservation areas. Although prepared before the Bank's 1991 Forest Strategy had been approved, its design reflected the need for conservation of natural forests and biodiversity, and poverty alleviation.

The objectives of FICP II were to reduce the pace of deforestation in Indonesia and to sustain and maximize the flow of benefits from forest resource use. The project components included natural forest management, plantation planning, research planning and development, and conservation of forest environments. It was designed to provide investments supplementing the implementation of FICP I. FICP II was expected to be completed sooner, as it did, than FICP I because of the different objectives.

Despite implementation delays, the Implementation Completion Report (ICR) for FICP I claimed substantial success in improving sectoral planning, management, and human resources (World Bank sources). For example, the ICR observed that policy, planning, and investment work, including the National Forest Inventory, were carried out by the program of studies financed under the project and undertaken by FAO. Indeed, 29 studies were completed in six major subject areas. Indonesian critics have argued, however, that the use of technical assistance for these studies was at enormous cost to Indonesia, while most of the studies remained on the shelves of the ministry (Hafild 1999). The ICR also stated that MOFEC's institutional potential increased to address major sector planning and management issues. For example, the Tropical Forestry Action Plan was completed based mainly on project studies. However, with the benefit of hindsight it is clear that the action plan avoided some of the main issues confronting the forest sector. The ICR similarly noted human resources development achievements and the strengthening of sectoral information. Human resource development gains cannot be properly assessed, but some positive benefit was likely. However, considering the poor state of knowledge about forest cover in Indonesia, the quality of the information collected is doubtful (Kartodihardjo 1999b).

The other achievements of the project, judged successful in the ICR, included an improvement in forest research capacity and addressing the critical conservation needs through investments in five national parks around the country. Royalties and levies for logs were also increased by a factor of three—although this was not a project covenant, the studies financed under the project were expected to result in changes in policies (some NGOs disagree that the increase in royalties was a result of the Bank's actions). However, even the revised level of royalties was well below the replacement cost of trees. It is not clear what proportion of the royalties was actually collected. Paradoxically, the Bank's recommendation on royalty collection in part enabled the MOFEC to turn down Bank loans, avoiding the intended forest sector reforms.

Despite these achievements, the ICR identified some major challenges to the forest sector. These challenges made the sustainability of the project's achievements uncertain. Important among these was the lack of government commitment to the project initiatives and to carrying out the institutional and policy reforms in the sector; lack of coordination among governmental agencies; and government reluctance to address the difficult land use issues by enforcing a clear and effective land-use policy for demarcating and protecting the forest areas of the greatest biodiversity and environmental value.

FICP I was intended to be the first of a series of lending and related activities in the forest sector with a long-term objective of achieving policy and institutional reforms. However, FICP I closed after FICP II, by which time MOFEC had decided against any further borrowing to finance forest programs. The reasons given for this included the need to reduce external debt, to use the large accumulation of funds in MOFEC in the Reforestation Fund (supported by levies from logging concessions), and the desire to use grant funds. Whatever the reasons and merits of this decision, the result has been that the Bank's long-term strategy did not progress. The Bank has therefore been concerned that the fundamental policy and institutional reforms needed to foster the sustainability of Indonesia's forest resources are not likely to be accorded the importance they deserve (World Bank sources).

FICP II also suffered implementation delays but was completed on schedule (World Bank sources).²⁶ However, two components were dropped: the implementation of the concession management component and construction of a research facility in the critical island of Irian Jaya. This meant cancellation of over 50 percent of the Bank loan. The ICR claims that the project met most of its other development objec-

tives. The government described the project as based largely on technical assistance leading to technical outputs and indicated that the judgment about the longer-term value and sustainability will be made when all data, information, and opinions are available. It said, "it is clear the Bank was too optimistic in its estimate of time frames needed to implement many of the components."

During the project, the government advised the Bank of its decision not to proceed with the concession management component and not to extend the project. It also seemed unhappy about the amount of technical assistance and the number of studies and plans that were included in the project. The total project cost at completion was US\$11.44 million against the appraisal estimate of US\$33.1 million, and over 50 percent of the Bank's US\$20 million loan was cancelled. The government questioned the Bank's unsatisfactory rating of the project in the final supervision completed in May 1995, which was based on the government's refusal to conduct field-testing of the concession management component. It argued that the "rating is based on the (Bank's) restricted criteria of disbursement *under the project*" while the decision of the ministry not to proceed with the component was based on the minister's decision to replace loan funds with grant-based funds and funds from the ministry's own resources to finance major development projects. At the same time, the government asked the Bank not to proceed with the third project it was then preparing. FICP I was still active at the time, however, and continued until its original closing date, as did the remaining components of FICP II and a Bank-cofinanced GEF conservation project.

Projects with Potential Impact on Forests

In the pre-1991 period, the Bank's investment program included 12 agriculture projects, eight power projects, two urban projects, one mining and oil project, and four transportation projects that could have had impacts—mostly adverse—on the forest sector. These impacts included loss of forestland to construction of infrastructure and conversion to other uses (as in agriculture or mining) and the creation of reservoirs for dams, which are generally in the upper watersheds and could permanently inundate sizeable chunks of forest. Unfortunately, these aspects were not analyzed in any of the projects reviewed for the period 1984–91. However, the government's transmigration program, which falls in this category, has been reviewed in-depth by the Bank.

Transmigration Projects

The Bank supported Indonesia's transmigration program through seven loans totaling about US\$560 million. One of these was implemented in the 1970s and the others over the period 1980–92. The main project components were land clearing, construction of villages and the related social and physical infrastructure, construction of settlers' houses, provision of agricultural services, tree planting, and construction of drainage systems, particularly in the swamps to be resettled.

Five of the seven projects consisted of transmigration schemes in the uplands of Sumatra and East Kalimantan, and two projects supported swamp reclamation in the coastal lands of Sumatra. The land clearing operations for housing and agricultural operations covered forested areas. Although its financial contribution to the program was relatively minor, the Bank was a catalyst in revitalizing the program. The intentions of the government and the Bank were primarily geared to addressing the imbalance in the regional distribution of labor and land, and to alleviating poverty. Unfortunately, neither the environmental issues nor the ensuing social stress created by these projects was anticipated.

A 1994 OED review of the Bank's transmigration projects concluded that the projects had largely succeeded in achieving their narrowly defined resettlement objectives, and most projects even had beneficial impacts on the welfare of the settlers (World Bank 1994b). The Bank's environmental guidelines were issued after the projects had been appraised. Although the Bank often correctly identified potential negative impact and proposed mitigation measures during appraisal, follow-up during implementation was weak. The review notes that although individually, adverse environmental impact of each site may not have resulted in a major loss of forest or biodiversity, it is only when the projects are viewed collectively that their serious and unmitigated impacts on the forests can be appreciated.

The OED review also noted that although the settlers had benefited from the programs and had settled into their new environment, the program had a major negative, and probably irreversible, impact on the indigenous peoples, particularly the Kubu, who depend on the forest for their economic and spiritual livelihood.

Although the Bank no longer supports the transmigration programs, the government has continued with them. These programs need to be evaluated. The extent of their impact is not known, but some studies note a significant impact through direct forest cover removal and impacts of unsustainable shifting cultivation practices as migrants seek to

increase their incomes (Sunderlin and Resosudarmo 1996). The programs are generally believed to have been failures on economic grounds. They have also led to significant environmental problems and social problems such as ethnic conflicts and inequities in the land rights.

Post-1991 Projects

The Bank financed no new direct forest projects after 1991. However, two projects had relevant activities. The Watershed Conservation Project (WCP) is a Natural Resource Management (NRM) project with a significant component directly related to forests. The Kerinci-Seblat Integrated Conservation Development Project (KSICDP) is cofinanced with the Global Environment Facility (GEF). With their focus on conservation and institutional building, these projects are directly relevant to the implementation of the Bank's 1991 Forest Strategy.

Natural Resource Management Project

The WCP, approved in 1994, is a US\$487 million project of which US\$400 million was for a forest-related component. The Bank approved financing for US\$56.4 million, which has been reduced to US\$16.25 million. The project objectives were improving watershed environmental quality and protecting downstream watershed resources, and improving living standards of poor upland farmers by improving and restoring the production potential of the resource base. The project components included: (1) institutional strengthening to improve the greening and reforestation program guidelines and policies, and provide investment support for greening and reforestation; and (2) development of Upper Cimanuk Watershed.

Under this program the Bank intended to: (1) improve the technical quality and cost-effectiveness of a soil conservation program for reducing ecological degradation; and (2) foster a more coherent institutional watershed management approach throughout the country. The project could thus favorably affect the forest sector through institutionalizing the planning and monitoring of greening and reforestation programs.

The environmental impact assessment (EIA) covered issues related to institutional development, environment, gender, and indigenous people. The sustainability of the watershed conservation program was to be ensured through productive farming system development that appealed to upland farmers and local government district staff commitment to the greening and reforestation program. The commitment of the central government has been sought for farming system research

and training and to make changes in the policies and regulations and remove constraints to the effectiveness of implementation.

Based on the recent Project Status Reports (PSR), after five years of implementation the results are not encouraging. The progress on the two main components—national institutional strengthening and investment support for regreening and reforestation—continue to be rated unsatisfactory and the achievement of project development objectives is highly unsatisfactory. Even the watershed conservation and management component, as a pilot program, is rated just marginally satisfactory. The pilot was intended to develop institutional tools for participatory planning in watershed management, which could then be extended to other watersheds in the country. Since a demonstrated methodology for underpinning the watershed intervention strategy has not yet evolved, the government has asked that the regreening and reforestation component be cancelled. The Bank has responded by reducing the loan by over 70 percent. Lack of commitment to participatory planning and implementation has hobbled the project, and the most recent PSR rates the government's willingness to make institutional and policy changes as substantially "risky."

Global Environment Facility Projects

Of the four GEF projects, two are relevant to forests. One is the Biodiversity Collections Project, approved in 1994 at a total cost of US\$11.4 million, of which GEF provided a grant for US\$7.2 million. The objective of the project is to strengthen the institutional capacity of the Research and Development Center for Biology of the Indonesian Institute of Sciences (PPPB). The project is consistent with the CAS objectives of improving environmental management and strengthening government capacity. The project seeks to establish the foundation of PPPB to meet the expanding needs for biodiversity information. Project implementation is reported to be satisfactory.

The second GEF project is the KSICDP, which was approved in 1996 for a total cost US\$45.9 million, with the Bank providing US\$19.2 million and GEF providing US\$15.0 million. Forest-related components comprise about 33 percent of the cost. The project objectives include: (1) improving park protection and management, including involvement of local communities; and (2) promoting sustainable management and maintenance of permanent cover in the remaining buffer zone concession area. In addition to support for park management, the project includes improving land use planning, land use rights, and community resource management in areas with forest interests.

The project is expected to have a highly beneficial environmental impact by protecting the 1.3 million ha of the national park and surrounding buffer zone. About 13,400 households would directly benefit from the investment funds, and about 300,000 households would indirectly benefit from improved biodiversity conservation. However, there are some environmental and significant land use and socioeconomic development implications. These include boundary rationalization and forest concessions; mining concessions; road development; park encroachment; and women, tribal groups and poverty impact. The mitigation measures to address these issues have been agreed. Unfortunately, the indicators established for these impacts have not been fully supervised.

The Bank's supervision reports list the crucial elements for sustainability, including shared responsibility in park conservation between the MOFEC, local governments, and the village communities bordering the park as well as participatory planning, land use zoning, development of incentives and alternative livelihood opportunities, decentralized decision making and empowerment of local communities, and successful conflict resolution of land-related issues. This long list of resolutions would need lot of commitment from the government, which, if not forthcoming, would undermine sustainability. A recent PSR has rated the risks faced by many of these areas as modest to high. Of particular concern is continuing encroachment in the park and illegal timber felling attributed to the impact of economic crisis on the local economy and lack of local political support.

Major challenges facing the project, as noted by a recent study (Wells et al. 1999), include the desire by two (West Sumatra and Bengkulu) of the four bordering provinces to expand tree-crop and estate development around the park, and to build roads through it. The road moratorium was broken in West Sumatra in 1996 but restored as a result of persistent Bank efforts to get the central government to intervene. In contrast, Jambi Province depends on the park for watershed protection and has demonstrated support for the project by canceling several roads proposed through it. Another challenge to the project's activities and to the park is the lack of incentives for concessionaires to practice sustainable forestry. In addition, subsidized loans to convert concessions to oil palm or timber plantations further skew the incentives and reduce the prospects for conserving biodiversity in Kerinci-Seblat's lowland forests. The local NGOs have limited capacity to help communities develop village plans and then negotiate agreements with park authorities and local governments. Finally, the project depends on effective and

coordinated action by three separate agencies and four provinces. Central leadership is limited for lack of field presence and field staff capacity. These challenges considerably reduce the prospects of sustainability of the project's activities.

Projects with Forest Components

In the post-1991 period, the Bank has financed five projects, all in the agricultural sector, with components for tree-crop development. These projects are described in Annex E. All of them are careful to note that they will not affect primary natural forests. The tree-crop components are generally progressing well, although several have suffered implementation problems and have had to be restructured. Common problems among the more advanced projects include weak project management and lack of counterpart funds.

Projects with Potential Impact on Forests

Sixteen projects (six in agriculture, two in power and energy, and eight in transportation) have potential impacts on forests. In all of the agricultural projects, the project-affected peoples (PAPs) are recognized—as are environmental concerns—and where necessary, provisions are made for environmental impact assessments (EIAs), preparation of resettlement plans, and other mitigation measures. Technical assistance was made available to strengthening expertise in environmental assessment and mitigation planning in various ministries, with the notable exception of the MOFEC. In agricultural research projects, however, the relationship with forestry research was not evaluated.

In the energy and power sector projects, EIAs provided for resettlement plans and mitigation measures as well as full compensation to the PAPs. A policy framework has also been prepared for land acquisition compensation and resettlement. While the impact on forests is implicit in the land acquisition and resettlement plans, the impacts could have been clearly identified and mitigation discussed.

Four of the eight projects in transportation sector with potential impacts on forests are highway projects, the rest are for development of rural roads. Spread over 1992–98, the project design in this sector has addressed the environmental issues better than any of the others, and has progressively improved the application of the government's Environmental Procedures Law 29 of 1986 (AMDAL) and the Guidelines Decree 531 of 1986. The development of environmental sensitivity in the sector can be summarized as follows:

- In 1994, a comprehensive procedure for the EIA under AMDAL was discussed, and the responsibilities of various agencies were defined to ensure a complete impact analysis and ensure appropriate mitigation measures. A sectoral environment assessment exercise by the government focused on the environmentally sensitive or “fragile areas” for screening and assessment as part of EIA. The fragile areas included conservation areas, forest reserves, wetlands, coastal zones, and any area with potential erosion problems, clearly recognizing the potential adverse impact the highway projects on forests, and accordingly, the need for mitigation was emphasized.
- In 1996, the modifications proposed to AMDAL system through Government Regulation No. 51 of 1993 and Presidential Decree #55 on land acquisition for public facilities further improved the EIA procedures and the evaluation of compensation or mitigation measures. The PAP issues were to be resolved before approval of interventions.
- Finally in 1998, concluding that the government’s environmental regulations (AMDAL) are sound, the issues in planning and handling the AMDAL process were discussed. It was observed that the problem lay in “recognizing those relatively few projects that carry really significant impacts especially in terms of: (1) problems related to land acquisition and settlement; (2) issues concerning the new provision of road access to isolated communities; (3) damage to watershed and the hydrographic regime; (4) loss of forest and biological resources; and (5) conversion of non-sustainable use that results in irreversible land degradation....” For the first time, MOFEC was included as a stakeholder in the projects in the sector.

The Bank’s projects have supported institutional strengthening for environmental management in the central and some provincial highway departments, developing guidelines and providing training. The Bank has also made advances on resettlement and land acquisition issues by promoting decrees setting forth appropriate policies.

While these are positive developments, and the Indonesian EIA system (AMDAL) is considered world-class, its effectiveness in preventing adverse environmental impacts has been limited. This is because the reports’ recommendations are rarely taken seriously, and project approval or implementation is rarely affected by environmental assessments. Thus, the impacts of these projects are not yet known.

Global Alliance

A new initiative by the Bank for the forest sector is an alliance with the World Wide Fund for Nature (WWF) that seeks to work with governments, the private sector, and civil society to significantly reduce the loss and degradation of all forest types worldwide. The World Bank/WWF alliance activities in Indonesia are still being formulated, but the initiative has faced some problems.

WWF staff have indicated that there is concern about the dilemma to balance local as opposed to global initiatives. One problem is the limited number of staff and scarce resources. External initiatives like the alliance often have to come at the expense of other ongoing, at times more pressing, activities without much gain in impact. Many of the activities that the World Bank/WWF alliance seeks to undertake are already being attempted by the WWF. The problems are in the implementation of programs, especially in realizing the worthy objectives under the current political realities in Indonesia.

The limited additional resources made available under the alliance also pose incentive problems. The small sums available for exploratory activities require substantial staff resources to prepare proposals; the same staff resources could easily be spent to raise larger sums from other agencies. Bank staff working on alliance activities have similar views. Furthermore, there is no assurance that the initial allocations by the alliance will lead to follow-up investments of any significance.

The views of the WWF staff suggest that for the alliance to be effective, a far greater effort is required to build a sense of ownership by the WWF local offices. There is also a significant need for commitment of Bank staff and Indonesian agencies to make the alliance activities successful.

Non-Lending Services: Economic and Sector Work and Policy Dialogue

In the post-1991 period, the Bank has undertaken a significant amount of high-quality formal ESW covering forestry, environment, and agriculture. Most of this work was concentrated in the early 1990s. The forest sector report, for instance, was completed in 1993. Since then, Bank staff have circulated informal discussion notes (World Bank 1995, 1998). However, until 1998, no resources were made available for undertaking formal ESW.

The forest sector report, and the subsequent environment sector report, explicitly recognized the need to balance and trade-off the imperatives of economic development, the best use of forest resources,

biodiversity conservation, and environmental concerns (World Bank 1993b, 1994a). The forestry report highlighted the political nature of the demarcation line between permanent (conservation, protection, and production) and conversion forests. The focus of the report was sustainable forest management, citing substantial work already done on conservation and biodiversity. It argued that regaining control of production forestry was a necessary condition for conservation and preservation work, and that the two activities needed to be pursued simultaneously to address the most pressing issue in forest management, unsustainable levels of logging. It also noted that although Indonesia has made important decisions at the highest political level by committing to maintaining about 84 million ha of forest cover in the long run, and the decision to implement the ITTO guidelines by the year 2000, there was a significant gap between official policy and actual implementation.

The report called for rationalizing policy and practice, implementing existing rules and regulations, and rationalizing the location and allocation of forest land by avoiding the overlap between conservation, protection, production, and conversion forests. It argued for equity in the distribution of gains from forestry and that local (forest dwelling and adjacent) communities be given a more proactive role in the sustainable management of forest resources. There was also a need to rationalize the financial arrangements between central and regional governments to improve the incentives for oversight and management. Lack of enforcement of policies has been a generic problem, and the report recommended mobilizing stakeholder resources—NGOs, private sector, academics, and others—to improve implementation.

The report's forthrightness appears to have been the genesis of the government's, particularly MOFEC's, dissatisfaction with the Bank. The then Director of the Bank's Indonesia Country Department decided not to issue it as an official report after it had been discussed with the government. The report remained in draft, intended to promote discussion. The main issues of contention appear to have been the significant policy and institutional reforms, the desirability of the involvement of the concerned forest communities as a key interest group in the management of forests, and ensuring sustainability along the guidelines established by the ITTO. The resolution of these issues would have implied a significant departure from the existing management practices, which served only the interests of the politically well-connected and the military. The decision not to issue the report restricted its availability and muted potentially valuable discussion.

As it became clear that MOFEC and the government were not serious about implementing the reforms discussed in the report, the Bank and the government agreed to end their lending relationship in the forest sector. Officially the government informed the Bank that it was not interested in borrowing from the Bank in support of the forest sector. This led to the cancellation of a substantial part of FICP II and NRM and the termination of the preparation of a follow-on project. It should be noted that only the policy and institutional reform components were canceled; the other components and other projects continued, including the FICP I, GEF, and the NRM projects, all of which had substantial Bank contribution and MOFEC involvement.

It is apparent that the government did not want the Bank involved in the area of policy and institutional reforms as it did not like what the Bank's sector staff were recommending. At the same time, the Bank's top management was not willing to jeopardize its relationship with the country over disagreements in the forest sector, which constituted only a minor part of its total portfolio. Overall lending has through the 1990s (until the 1997 crisis) remained the same. As OED highlighted in its CAR, as in the case of other sectors in Indonesia, the dialogue at the ministerial level lost its effectiveness because of the mixed signals sent by senior Bank management (World Bank 1999).

Although it did not reach the stage of representing the Bank's official position, the 1993 report contained a fairly comprehensive strategy for the development and sustainable management of the forest sector, and its recommendations conformed with the Bank's forest policies. It has provided the foundation of the Bank's subsequent thinking toward the forest sector, even though direct involvement in the sector has been very limited. Some of the main policy recommendations of the 1993 report were included in a subsequent Bank report on the environment (World Bank 1994a), which was discussed with the government and officially issued by the Bank. However, the government adopted none of the recommendations on sustainability, equity, and institutional reforms in the forest sector.

Since 1993, the focus of the Bank's advice has remained on economic efficiency and the proper valuation of natural resources. It has argued for policy reforms to correct the distortions creating adverse incentives for the management of forest resources. The playing field has long been substantially tilted in favor of the large-scale processing and estate sector. Non-transparent management practices, lack of enforcement, and generally poor governance has resulted in excessive logging, at approximately twice the sustainable levels.

The main recommendations by the Bank before the 1997 financial crisis are summarized in a working paper issued in 1995 (World Bank 1995). The paper concluded that Indonesia would be better off, in economic terms, by introducing policy changes to induce a more efficient and sustainable use of its natural forests, rather than continuing with the non-sustainable patterns of use. It identified the disincentives to sustainability as:

- Raw material pricing and allocation policies that discouraged efficiency in the extraction and use of wood, and discouraged investment in timber plantations
- Industry policy based on inefficient export taxes and official sanction of a cartel controlling processed exports
- The exclusion of communities living in or near the forests from title or participation in forest management, and lack of consultations before projects were approved.

Other policy areas were identified, related to the direct mandate and practices of MOFEC, that could improve the incentives for sustainability. These were the method of log sale, which placed heavy demand on MOFEC for monitoring and encouraged corruption; concession terms (short leases and non-transferability) discouraged private interests in sustainability; and land use decisions based on ill-defined boundaries and unclear responsibilities for supervision were encouraging forest degradation and misuse.

The report recommended that the government:

- Progressively replace log export taxes with higher royalties to better value the forest resources and increase rent capture, and comprehensively review export taxes on sawn timber.
- Remove the linkage between logging concessions and processing plant capacity.
- Eliminate the plywood marketing cartel and promote competition.
- Offer longer concession leases and permit transferability of concession rights.
- Stop approval of conversion of forestland (including to HTI use) until a more effective classification of the forests is completed.

Complementary to this, the Bank has long maintained the urgent need to properly map the forest estate to promote transparency and rationality in land use decisions.

- Increase the share of revenues going to the provincial and local governments, conditioned on their performance in managing and regenerating areas and protected forests.

- Change the Forestry Act and other legislation, and develop supporting regulations to facilitate land titling in forest-dwelling and forest-adjacent communities. As a precursor to this, facilitate award of concessions or share in concessions to communities identified as traditionally linked to forestland to promote cooperation in regeneration, protection, and management of forest resources.
- Improve procedures to increase the effectiveness of monitoring and revenue collection (introduce log sales by area; performance bonds for regeneration and proper management; and introduce an independent inspection system).
- Protect regenerating forests (by revising the HTI scheme and make it consistent with new restrictions on the use of regenerating forest land; and accelerate the KPHP process—a new forest land-use management system—and include new provisions in leases requiring prior consultations with local communities and their inclusion in project activities and follow-up).

In addition, the Bank recommended that higher prices could be achieved by introducing auctions of timber concession rights (to be phased in when and where feasible). Where long-term concession rights are in place, or genuinely competitive auction is not feasible, the government could set log prices according to residual appraisal formulas calculated from international price levels. By phasing in the transition to such pricing strategies, following firm policy announcements, the government would allow existing industries to restructure and would encourage potential new investors to begin seeking log supply sources before investing in a new processing capacity. A phased approach to reforms would be a reasonable compromise between introducing log parity prices immediately and doing so little about introducing market signals that rent-seeking became institutionalized at the expense of developing competitiveness and efficiency.

An efficient, competitive log market would produce a better concession system. Elimination of excessive rent-seeking in the concession licensing system would allow for greater flexibility in the allocation of ownership and leasing rights over forests, and in the introduction of multiple uses, including the full range of biodiversity conservation, ecotourism, and other global considerations. The resulting system would probably blend auctioning (or other forms of sale) of timber extraction rights to interested purchasers and rights or contracts of management to other interested groups (which might include local communities) and

provincial governments—all in the context of a firm government policy on the broad parameters of natural forest conservation.

The Bank's policy advice covered a wide range of issues with direct bearing on the sustainable management of forests in Indonesia, and a focus on bringing commercial production forestry under control. While some of the specific policy recommendations have been controversial, and there are other shortcomings, the strategic direction, from the stress on economic efficiency and incentives for sustainable management practices to community participation and administrative and financial decentralization to overcome implementation and governance issues, appears to have been right. The concerns voiced by the critics of the Bank's policy advice have largely been about the conditions attached to the structural adjustment loans after the financial crisis. A critical assessment of the reforms included in the adjustment operations, as they have been implemented and their chance of success is reserved for the discussion below on structural adjustment.

On the ESW underpinning the policy advice, three issues need to be noted. These relate to the forest sector in general and to the Bank's 1991 Forest Strategy. The first is the inadequate focus on the issue of poverty in forestry ESW. The Bank has consistently expressed concern about communities directly dependent on forests for their livelihoods. But their economic status and level of poverty are not discussed. It is believed that a large number of people are dependent on forest for subsistence and that these include some of the poorest groups. Although the exact number is not known, it is likely that a majority of the rural poor would be from this group. Yet the link of forest sector issues affecting the poor to the Bank's CAS or macroeconomic policy dialogue has not been adequately established. Nor have the forest-dependent poor been fully integrated into the Bank's poverty reduction strategy. Forest sector issues have gained prominence recently in the context of adjustment lending, but this has been more for environmental concerns and sustainability of economic growth, and less for equity reasons. This finding is similar to that of the OED CAR, which noted that poverty analysis by the Bank has been slack in recent years and the issues of regional distribution and the vulnerability of the "near poor" have not been adequately studied (World Bank 1999).

The second issue concerns the cross-sectoral impacts, which may be more important than the impact of direct forest sector policies on forests. It is clear that agricultural development, particularly tree crop plantations, has a major impact on forests in Indonesia. In this context, the

lack of appreciation of the effects of agricultural incentives and the need for countervailing measures to conserve forest resources (for global or national public services) is a notable omission in the Bank's sector work on forestry and agriculture (World Bank 1992, 1994a).²⁷ Nor has the linkage been emphasized between economic growth and the unsustainable exploitation of natural capital. In the drive for diversification of exports, no effort has been expended in linking the government's policy of promoting growth in the capacity of processing industries to the demand pressures they place on forests. This not only has equity implications but also risks the long-term sustainability of economic growth as the natural capital base is depleted too rapidly.

Finally, the underlying assumption in Bank advice is that sustainable management of forests is economically viable and competitive with alternative uses of land. Some observers have questioned this assumption (Barr 1999a). As noted earlier, neither the Bank nor other researchers have yet been able to establish whether this assumption holds.²⁸ The reliance on market prices as the allocation mechanism in the absence of regulatory enforcement is based on this assumption. Some studies note that current financial incentives appear to favor conversion of forests to other uses, notably oil palm production (Tomich et al. 1998, Potter and Lee 1998). Other evidence (Scotland 1998) suggests the contrary—that world market prices may improve the returns to concession management. Although these latter findings are based on a “representative” firm model, and are critically dependent on the underlying technical and market assumptions, the orders of magnitude between the returns at local prices (27 percent) and returns at world prices (130 percent) is sufficient to warrant further detailed study using better models and data. The Bank has not tried to establish the validity of its focal policy advice. This issue, however, is part of a broader issue: underinvestment in ESW. As noted, after 1993, the Bank has not allocated any resources for forestry ESW. While Bank staff have kept in touch with the emerging issues in the sector, they have not had enough resources for in-depth analyses to better inform their policy advice.

Structural Adjustment

Once it was effectively excluded from the sector, there was no occasion for the Bank to emphasize its viewpoints. Nor was government, particularly MOFEC, willing to listen to the Bank on sectoral policies. With the termination of the lending program, the Bank did not undertake any more ESW. Many of the recommendations from the ESW in

1993, and the analytical work in the 1995 report, eventually formed the basis of the IMF conditionality for the forest sector in 1998.

Indonesia is one of only three countries where forest-related reforms have been included in an IMF structural adjustment loan package. This event is significant for several reasons. For the first time, the significance of the sector, its policies and performance in the national economy were fully recognized. The Bank raised in its dialogue with the government the status of the forest sector issues, something on which the Bank had hitherto equivocated. It also raises important but difficult questions given the history of the relationship between the Bank and the borrower in the forest sector—the relationship had been effectively frozen between 1994 and 1998. The Bank had virtually no dialogue with the MOFEC during that period, let alone any progress on policy issues. The “official” explanation notwithstanding, the real reason was the disagreement over the reforms the Bank had proposed. The sector was an integral part of the political patronage system, and highlighted the broader issues of governance and social stress, noted as some of the key structural weaknesses by the Indonesia CAR (World Bank 1999). On one hand, policy conditionality provided an opportunity to get some reforms implemented, if only in letter, on the other, it raises the issues of ownership, sequencing and appropriateness of the lending instrument, and whether the reforms would in fact be effective in spirit.

Reform Conditionalities

The financial crisis of 1997 and the ensuing IMF reform package provided an opportunity to take up some of the outstanding policy reforms and re-initiate a dialogue on the others. In its January 1998 reform package to Indonesia, the IMF, after consulting the Bank, included some specific conditions related to the forest sector in its negotiations with the government. The conditions were based on the Bank’s previous ESW and included:

- Increase the forest land tax.
- Transfer the Reforestation Fund to the official budget, and ensure that it is used exclusively for reforestation program.
- Abolish the export tax on logs, sawn timber, and rattan and replace it with a resources rental tax.²⁹
- Remove restrictive marketing arrangements embodied in the exporter’s cartel.
- Reform logging concession regulations, with periodic reviews of stumpage fees.

- Lengthen concession terms and allow transfer of concession rights.
- Allow competitive auctioning of concessions.
- Implement performance bonds.
- Reduce land conversion targets to environmentally sustainable levels.

In addition, the export tax on palm oil was to be reduced, with exception granted for a short period, during which the exports were banned because of domestic shortages; and restrictions on foreign investments in palm oil plantations were to be removed.

In April 1998, the Bank followed up with further policy reform requirements through PRSL I. Besides benefits foreseen from “improved governance, efficiency and transparency” and “increased environmental sustainability,” the loan documents perceived major risks as political uncertainty, social unrest, and limited administrative and institutional capacity to implement a strong reform program in the country. Forest-related conditions included were additional to the IMF conditions, and others provided greater specificity:

- Linkage of forest royalties to world prices
- Reduction of export taxes on forest products
- Introduction of an independent system of monitoring of forest resources and management of operations on all forest lands, encouraging participation of local communities and protection of indigenous forest dwellers
- In consultation with stakeholders, develop an improved methodology for allocating forest land
- Complete an updated map showing correct outer forest boundary
- Moratorium on new licenses and permits until these new measures are in place
- Development of sustainable forestry land management targets.

A second PRSL, which became effective in April 1999, pursues the above conditions. According to the Statement of Development Policy submitted by the government, an objective of the ongoing reforms is to address the need for increased transparency and anti-corruption measures in Indonesia. Following up on its earlier commitments, the government promised to increase consultations with all stakeholders before it enacts further reforms. It also intends to take strong measures to identify, in a consultative manner, community groups living in and around forest areas that have legitimate claims to share in the benefits of forest use and management.

Implementation and Potential Impact

Reforms in the terms and conditions of the concession award were to be incorporated in the new forest law, passed in early 1999, dealing with concessions and revenues, the set of regulations that govern concession operations. The government has agreed to increase concession license terms and to make the rights to concessions saleable. The requirement of corporate linkage of concessions to large processing facilities will be removed so any group can manage concessions. It agreed to develop a system for deciding on, demarcating, and then implementing the division of forest land into its best use categories, and to base this on the need to *encourage participation of local communities in forest management and protection and protection of the rights of forest-dwelling indigenous people*. The government has also agreed that no new concessions will be granted until these reforms are in place and that the improved and more independent systems of monitoring and enforcement of control of forest operations will be designed and implemented.

The structural adjustment program has so far had mixed results. The conditionality has achieved some reforms, including tax reductions, reform of concession contractual terms, and notably the abolition of the plywood marketing cartel and the transfer of the restoration fund to the ministry of finance. The potential impact of some of the reform measures, however, is the subject of debate among local researchers, civil society advocacy groups, and international observers. The arguments stem in part from apparent inconsistencies among different elements of the policy conditionalities—in part because of the underlying assumptions on which specific reforms are based, but also because of imperfect understanding of what the Bank has proposed and the rationale behind it. The final outcome remains uncertain as it is too early to judge the full impact.

Among the specific issues raised by observers is the wisdom of a uniform level of export taxes, which included the removal of the ban on the export of oil palm and replacing it with an export tax (see, for example, Barr 1999a; Kartodihardjo 1999a). Gradually, the tax was expected to be reduced to 10 percent. Another issue is the liberalization of foreign direct investment in the oil palm sector, to encourage large-scale investments in oil palm estates. These policies are considered inconsistent with the intent of the conditions calling for sustainable forestry practices and reduced land conversion targets. As discussed earlier, oil palm currently is significantly more profitable than other land uses in Indonesia, and external investors are eager to invest in Indone-

sia to take advantage of its significant comparative advantage in oil palm production.³⁰ Considering the threat that oil palm development poses to natural forests, reducing the tax and encouraging large-scale foreign investment is expected to increase the incentives to deforest.

The initial impact of the financial crisis has been muted, largely by the government's decision to ban palm oil exports to ensure adequate domestic supply. Other factors have also contributed to the reduced production of oil palm in the months following the financial crisis and the forest fires of 1997/98 (Casson 1999). However, production and expansion of area is likely to increase substantially in the near future. The export ban was subsequently replaced by a 60 percent export tax at the behest of the IMF, and has more recently been reduced significantly.

Bank staff maintain that these reforms need not result in increased deforestation as there is a sufficient amount of degraded forestland that could be used for oil palm expansion. The reduction in tax is intended to promote the optimal use of (degraded) land rather than lead to further deforestation. Other conditions are expected to ensure that all new oil palm development will in fact be sited on designated conversion land. In reality, most of the attractive conversion areas are already planted and there is a deficit between planned and available conversion land (e.g., on Sumatra; Casson 1999). In other places, the lack of enforcement of regulations on plantation management, unclear boundaries of conversion or degraded forest areas, as well as non-transparent concession operations make it doubtful that the negative impact of the policy change can be altogether avoided. From the social point of view, plantations have additional negative impacts. Even on degraded lands, they tend to have a more insidious impact on local communities as they mark the final dispossession of their land and provide fewer alternatives for income generation (Potter and Lee 1998). In short, the wisdom of blanket conditionality on export taxes needs to be questioned under the current governance structure, especially without a proper analysis of their potential impacts.

Another assumption that has been questioned is that increased efficiency will promote conservation of forests. Recent evidence suggests that in the face of declining log supplies, some plymills have already invested in more efficient technologies, allowing them to extract more from each log, or alternatively, using thinner logs to extract additional profits (Barr 1999a). A result of this is that the firms are now going back to logged-over areas and logging trees before the optimal cutting cycle. This argument, however, presumes widespread illegal logging and

the absence of an effective custody system. Although the Bank has identified illegal logging and enforcement as a key issue, and recommended local participation in forest management, the issue is one of appropriate sequencing to avoid adverse outcomes.

A related issue is the continued existence of large resource rents and the ability of the government to extract them. The rents are probably declining as timber supply diminishes, but the magnitude of the rents needs further study. In addition, the government's ability to collect the royalties and resource rental taxes in the current atmosphere of widespread corruption is a critical assumption that is not likely to hold. The problem is evident in the large volume of illegal logging (Brown 1999; Kartodihardjo 1999b). This again raises the issue of governance and sequencing, and the Bank has long been well aware of both.

On other more fundamental reforms, progress is likely to be limited for lack of adequate "preconditions" (Kartodihardjo 1999b). The key constraints to effective implementation of the reforms are the lack of accurate information on the state of forest resources and their social environment; lack of results-based performance indicators, to get around the problem of administrative reforms and translate them into results; lack of community participation in implementation and control of resources; and lack of transparency and accountability in forest management. While the conditions on the adjustment loans have progressively been expanded to address some of these issues, the lack of political will in MOFEC to implement the spirit of the reforms and effectively deal with governance issues is a serious obstacle to the success of reform program.

There are several examples of MOFEC's—and by extension, the government's—lack of commitment to real reforms. Several incidents of the deviation of actual implementation from the policies agreed to by MOFEC as part of the conditionalities are noted in Kartodihardjo (1999). One example is reflected in the recent redrafting of the Basic Forestry Law. Following the mandated consultative process, the government established the Forestry and Estate Crop Development Reform Committee (FECDR), comprising key stakeholders from the private sector, universities, and NGOs in addition to MOFEC officials. After a series of consultations, the FECDR submitted a set of recommendations for reforming the regulations concerning concession rights and forest products utilization. However, the final draft of the law submitted by the MOFEC did not adequately reflect FECDR's recommendations, specifically those relating to the recognition of local community rights on forests.

This lack of government commitment and political will raises a more generic issue of ownership by other key constituents. Before 1998, the Bank did little to build support for its reforms from nongovernment stakeholders. As a result, the Bank has faced the problem that NGOs, academics, and civil society are not aware of the details of specific reforms in the structural adjustment reform program. This is a process-related issue, but important as the lack of awareness has raised concerns about the Bank's credibility, and some have even questioned the Bank's intentions (Dubash and Seymour 1999). There is lack of awareness of how adjustment works, what the intended reform objectives were, and the details of the proposed reforms. In general, many Bank critics agree with many of the proposed reforms (Kartodihardjo 1999b).

Assessment

Analysts and Indonesian NGOs generally agree on the direction of Bank efforts in Indonesia since 1997 (Kartodihardjo 1999), but some observers criticize specific conditions. Some of these criticisms reflect a difference of judgment about the relative importance or priorities of reforms, and others an incomplete comprehension of the conditions in which the Bank was operating in 1997. There has also been some misunderstanding of how adjustment operations work, as opposed to a project that plays out over a number of years. More significantly, however, the problem has been the Bank's credibility among some local advocacy groups that lack knowledge of the Bank's strategy. Until 1998, the Bank did not articulate its phased approach to reforms, the difficulties associated with the key elements of the reforms it was pursuing, or the rationale behind its proposed reforms.

The particular circumstances of the Bank's approach to structural adjustment in Indonesia and the complex issues in the sector complicate a clear-cut assessment of the program.³¹ First, a structural adjustment loan by nature is very short-term, and while it provides the leverage to initiate certain policy changes, it cannot ensure their sustainability in the absence of complete ownership or lack of political will by the borrower. A number of the issues that many critics of the adjustment lending conditionality are rightly concerned with are longer-term, institutional development-type reforms, which are not appropriate for a short-term program. Given the situation at the end of 1997, the Bank had to identify changes it realistically hoped could be achieved. Further, since not all reforms can be realistically included for all sectors of the economy, it had to be selective in the reforms that could be included as

policy conditionality. With regard to the inclusion of some reforms (e.g., performance bonds, auctioning) and not others (e.g., property rights), both of which need time to be implemented, Bank staff and some observers continue to differ about the likelihood that the reforms will be sustained after the adjustment loan has closed.

Second, the Bank had a short time to react, without an opportunity for broad stakeholder consultations before the IMF package. There was time for such consultation prior to subsequent adjustment loans, and the Bank has since been engaged in broad stakeholder consultations to revise and reformulate its strategy and policy reforms. It is clear, however, that even for the initial conditionalities, the IMF and the Bank could have better analyzed the potential conflicts among conditionalities, considered the realities on the ground, and identified the potential impact on forests. The motivation in the standard neoclassical prescription of uniform (and low) export and other taxes is furthering economic efficiency and facilitating smoother trade flows. However, in the presence of market failures, as is the case with forests and their non-valued public goods and services, appropriate consideration of the impact of an unfettered goods market and commerce on forests needs special attention. This was lacking in the design of the conditionalities, especially those on export taxes on agricultural and forestry-related goods.

Finally, the conditions in the structural adjustment loan were part of a larger strategy for sectoral reform. The main reforms needed in Indonesia, as the Bank has articulated in the past, are institutional in nature. Some reforms, primarily pricing and tax reforms, can be achieved by decree; some of these have indeed been achieved, including the transfer of the restoration fund from MOFEC to the Finance Ministry. The remaining, arguably more important reforms, can only be achieved over time, a result of sustained incremental institutional change. On the latter, an important lesson that the Bank has learned is the need for ownership of the reform process in order to make effective and lasting reforms.

There are areas where the Bank could have done more in terms of being prepared. One area is regular, in-depth ESW, at least in high-priority areas, so that when it does come up against an emergency, it is able to respond appropriately. Alternatively, it could have fostered greater collaboration and partnerships with other donor and research agencies to maintain its knowledge base in the absence of ESW resources or opportunities. Because of its dissociation with the MOFEC and limited

opportunity for sector work, the Bank did not fully recognize the speed and magnitude of changes in the sector. Thus, although the Bank was aware of the rapid expansion of the pulp and paper, and oil palm industries, it did not have the benefit of an in-depth assessment of the magnitude and pace of their development, nor of their potential impact on the forests. It assumed that plantation development would be restricted to degraded land and conversion forests as called for in the existing rules.

In this situation, given the problems of enforcement, and governance more generally, there has been criticism of the Bank's approach of focusing only on bringing the supply side under control through various measures to promote sustainable production. In the current legal and regulatory environment, it is unlikely that *any* measure to control the destruction of forests would succeed. In the short run, because of sequencing problems, there is a risk of adding to pressures on forests in the light of strong vested interests and economic incentives to deforest. An alternative strategy for the short run could have been to include measures to control the demand for forest products more directly. For example, slowing down the excessive capacity generation in the pulp and paper industry, or a judicious use of taxes and subsidies on finished forest products may be more effective until the broader policy and governance issues are resolved.

A precondition for reforms is the reform readiness of the country (see Annex C). This entails making an assessment of the political desirability, feasibility, and sustainability of reforms. In the absence of any of these, significant policy and institutional reforms are not likely to be successful. Given a lack of political will and low feasibility of achieving sustainable reforms, broad consultations to establish the support of key stakeholders and constituents are important building blocks for institutional and policy change. Central to this effort is the dissemination of analytical work and promoting broader ownership for reforms.

Within this framework, the Indonesian case is particularly complicated. While the reforms proposed by the Bank have support and ownership in the Ministry of Finance, the support from the *implementing* agency, MOFEC, is almost completely lacking. As a result, "stroke of the pen" reforms have been implemented, but the effectiveness of many of these has been limited, and several of the other complementary conditions have not been implemented. In some instances, the impact of the included reform measures has been negated by the introduction of other measures (e.g., export licensing).

Up to the financial crisis, the Bank made little effort to promote broader stakeholder ownership, nor did it proactively seek to leverage its policy dialogue by engaging donor agencies active in the forest sector. Many in the donor community feel that the Bank has worked in isolation in dealing with forest-related reforms, without adequate consultation or coordination. There were no attempts to engage civil society, local communities, or academics and researchers in discussions or formulations of a reform agenda. The Bank also failed to publicize its sector work, which would probably have won some support from local civil society groups. As noted earlier, even the policy conditionality in the IMF reform package of 1998 has led to a “credibility” problem for the Bank, with many local civil groups and researchers questioning the Bank’s intentions and advice.

The Bank appears to have accepted the criticism of its previous approach and adopted a much more consultative process for its sector strategy, to refine its policy reform recommendations and develop implementation plans. It has articulated a sequenced approach to reforms in the forest sector and has raised the status of the forest policies in its overall policy dialogue. Central to the new approach is the “opening of the doors to community participation.” In the short term it intends to pursue tasks aimed at securing and protecting the forested estate; improving monitoring and enforcement in forest operations; and establishing collaborative forest management and sharing the benefits through strong community participation. Over the medium term its goal is to manage the transition to a more participatory forest sector, including institutional reform and decentralization. The long-term goal is to develop a new forest sector paradigm in a participatory and consultative manner that is acceptable to all the key stakeholders.

Overall, although gaps remain in the Bank’s structural adjustment program, whether the program succeeds in changing the fundamental direction of the sector remains to be seen. However, the Bank has certainly succeeded in putting the forest sector high on the economic reform agenda for Indonesia. It has created a significantly higher level of awareness and raised the level and the quality of debate on forest issues, and helped make the decision making on policy more participatory and consultative than it was before the reforms. This is particularly important in Indonesia, where civil society has been unable to push the government to undertake reforms, despite some environmental disasters of unprecedented proportions. It has also succeeded in bring-

ing about some key policy changes. The main problem has been one of sequencing, whereby the impact of even the “stroke of the pen” reforms is threatened by inappropriate or inadequate institutional reform. The final judgment of the wisdom of including forest-related conditions in a SAL, will of course, only be known in due time as the reforms are undertaken and their impact felt.



6

Findings and Lessons

The tropical rain forests of Indonesia are second in size only to those of Brazil and are among the world's richest in biodiversity and in the cultural diversity of its forest-dependent people. Although forests have contributed to its economic growth, Indonesia has not used its forests well either in terms of achieving the development objectives of equitable growth or from a conservation perspective. With better governance and participation of forest-dependent communities, more might have been done to use Indonesia's natural capital efficiently, equitably, and sustainably. The lessons that can be drawn from Indonesia's experience are important for the government, Indonesian society, and for the World Bank as a partner in a more just and sustainable economic development.

Forest Sector Outcomes

The state of the Indonesian forests has deteriorated through the 1990s, and the rate of deforestation has reached an unprecedented 1.5 million ha per year. Furthermore, the benefits flowing from the natural resources have been highly inequitable, bypassing the forest-dwelling and forest-adjacent communities, some of whom have inhabited their lands for a long time. Thus, the outcome, the "results on the ground," can only be judged highly unsatisfactory. Commercial logging and tree crop plantation interests have depleted the country's forest resources. Failure to sanction non-fulfillment of obligations under the HPH and HTI rules has promoted deforestation of under-aged trees, degraded logged-over forests, and resulted in failure to replant and failure to establish timber

plantations. MOFEC has also been unable to prevent logging of protection and conservation forests and degradation of production forests. This is partly because of inaccurate information on where the different types of forests are, resulting in large overlapping areas and inappropriate logging, but in large measure it is also because of poor governance, which has resulted in corruption and illegal activity.

Extremely weak governance has been the most debilitating problem in the sector. Under the current KKN system, this can partly be attributed to the political influence of strong vested interests from outside MOFEC, the official custodian of the nation's forest resources. However, the ministry has also shied away from its responsibility. Lack of enforcement of existing rules and regulations; lack of an effective custody system; poor management and implementation capacity; and the key role that officials at various levels have played in the patron-client relationship have resulted in the unscrupulous exploitation of Indonesian forests.

Could the Outcome Have Been Avoided?

As in all cases where the counterfactual is not available, this statement can be debated, but it is highly likely that the level and extent of degradation and deforestation that have taken place could have been avoided. At the highest level of policymaking, Indonesia has long projected an image of strong environmental consciousness, reflected in the establishment of the environmental guidelines in 1986, an articulate set of rules and regulations on the allocation of available forest area into protection, conservation, production, and conversion categories, and an early commitment to retain 84 million ha under forest cover. While the existing rules and regulations could surely be improved, had the government, particularly the MOFEC, followed through and applied these to the management of the forest estate, Indonesia could well have managed its forests more sustainably and equitably. Counteracting the strong economic incentives that favor land conversion, or the extra-normal profits from exploiting a de facto free resource earned by large-scale logging and agro-industrial interests, required a strong and committed government to protect the long-term interests of the country and ensure social justice.

Was the 1991 Strategy Implemented?

The 1991 Forest Strategy was partially implemented by the Bank in Indonesia, but there have been important gaps in its approach. In fact, the Bank's forest sector operations in the late 1980s were consistent in their objectives and design with many aspects of the 1991 strategy. In

the post-1991 period, the Bank implemented the strategy in various ways. It did not have any direct forest operations, and hence did not finance any logging operations. It did continue to pursue a conservation agenda. The main thrust of its sectoral policy dialogue focused on the prime objective of bringing production forestry under control through policy and institutional reform. On the latter, it maintained a tough stance on many important issues. Whether the policy advice could have led to a more sustainable outcome is moot since the borrower implemented none of the advice. Nevertheless, the intent of the sectoral policy dialogue and the sectoral strategy has been clear and consistent with one of the main objectives of the 1991 strategy—reducing the pace of deforestation of natural tropical moist forests.

At the same time, the Bank pursued the second objective of the strategy—to increase tree planting—through various projects with tree crop planting components.³² It also financed a project with a substantial tree crop component in a conservation-oriented project with the objective of promoting reforestation in degraded areas. However, the project outcome was unsatisfactory as the component was dropped for lack of progress in implementation. The Bank also financed a biodiversity conservation project jointly with GEF. Thus, overall, the Bank pursued the two main objectives of the 1991 Forest Strategy.

An important gap in the Bank's approach to dealing with the sector has been its failure to apply a truly multisectoral approach, as prescribed by the 1991 strategy. On the positive side, the Bank's ESW in agriculture stressed the need to site tree crop plantations only on degraded lands in the outer islands, and operations in other sectors (e.g., agriculture, infrastructure) were careful in noting that the Bank's safeguards were applied (at least at the design stage). The Bank has not supported any transmigration program since the early 1980s. However, it has in the past downplayed the importance of the forest sector in its overall policy dialogue. The Bank's ESW, lending operations, and adjustment lending, however, have not analyzed the full impact of macroeconomic and trade policy reform, or the impact of agriculture pricing policies. The Bank's poverty analysis and CAS have until recently failed to fully integrate the forest sector in any substantive way.

Could the Bank Have Done More to Avoid the Outcome?

Although the Bank's sectoral approach was consistent with the 1991 strategy, and the strategy was partially implemented, the forest sector outcome is highly unsatisfactory. Part of the reason is that the Bank was

disengaged from the sector until 1998. Since the financial crisis, the Bank has had some success in getting some “stroke of the pen” reforms instituted, but even these are being resisted. While the tough stance maintained by the Bank in its policy dialogue at the sectoral level has been essentially correct, the Bank could have done more at the country level by pursuing the dialogue on policy reforms at a higher level.

Given the importance of the forest sector to macroeconomic stability, providing a large proportion of its export revenues, and the likely potential for alleviating poverty among a large number of poor people (forest dwellers and forest-dependent people are widely considered to be among the poorest), it is unfortunate that the Bank did not take up the forestry reform issues more forcefully before the financial crisis. Senior Bank management was reluctant to engage the government on this sensitive issue, arguably to avoid jeopardizing its working relationship with the government. Between the risk of irritating a large borrower and the relevance of the small proportion of forestry operations in the overall lending portfolio, the Bank was willing to sacrifice the latter. In general, as OED noted in its CAR, the Bank was reluctant to pursue the broader issues of governance and corruption, and failed to recognize the underlying social stress in the society. Unfortunately, the forest sector epitomized these problems.

In reality, however, addressing such issues and achieving success depends on the effectiveness of the Bank in bringing about policy change. Whether the Bank could have achieved success in the forest sector policy reform is debatable, but it appears Bank management felt it did not have the leverage. As is the case with many large borrowers, the actual leverage the Bank has is significantly less than is popularly believed. This situation has changed recently following the financial crisis.

The Bank was able to initiate some reforms, albeit in an emergency situation. To that extent, the Bank deserves credit for raising the sector to a national priority. The answer to the question of whether the Bank could have done more to avoid the outcome, however, remains uncertain. On the one hand, the Bank apparently did not have the leverage; on the other, it did not effectively use its moral suasion. The Bank failed to pursue important forest sector issues at a higher level. It also could have done more to generate coordinated multi-donor support to enhance its leverage for policy reform. Indonesia has publicly declared its intentions to preserve the environment, and its increased global stature (as non-aligned movement leader, etc.) had sensitized the highest levels of government to international opinion. The Bank could have used its

dialogue to persuade the government to abide by its own international commitments on the environment. The Bank could also have pursued more proactive outreach activities to the civil society and the private sector to build a platform and momentum for reform.

Summary Evaluation of Bank Assistance

This evaluation is concerned with the outcomes of the Bank involvement in the forest sector. It uses the standard OED methodology to evaluate outcome, *viz.* the relevance, efficacy, and efficiency of Bank actions. For evaluating Bank assistance in the sector, it is necessary to distinguish between the pre- and post-1997 involvement. After 1997, the involvement has taken the form of structural adjustment loans that are still being implemented. For this period, it is too early to evaluate the outcomes. Policy and institutional reforms take some time to yield results and it would thus be premature to assess their performance at this stage. It should be noted, however, that the Bank's approach has improved considerably since the original IMF reform package in becoming more flexible, participatory, and consultative. Thus, in terms of the quality at entry, the post-1997 performance is satisfactory. An evaluation of outcomes, institutional development, and sustainability will have to wait.

For the pre-1997 and post-1991 period, the evaluation is as follows.

Relevance

The relevance of the Bank's involvement in the sector, which in the post-1991 period mainly involved policy dialogue together with some tree planting and biodiversity activities, has been relevant to the 1991 strategy, to the Bank's sectoral objectives of sustainable forest management and environmental sustainability, to the government's stated policies of sustainable environmental management and conservation, and to what is needed in Indonesia.

Efficacy

The Bank has so far been unable to influence the rate of deforestation or the degradation of forests in Indonesia. Even in the biodiversity project, the lessons emerging from implementation strongly indicate that focusing only on conservation, without addressing the real threats to the forests from commercial logging, plantations, and infrastructure development, is not a sustainable prospect. At the same time, tree crop components in non-forest projects have largely achieved their objectives. In summary, the efficacy of the Bank's assistance is negligible.

Efficiency

The efficiency of the Bank's involvement is negligible. The problem is that little has been achieved in terms of outcomes, and hence there is little basis for evaluating the efficiency of the program.

The overall outcome, a combination of the above three aspects in OED methodology, is judged highly unsatisfactory.

Institutional Development

The impact of the Bank program on institutional development has been negligible. By staying out of the forest sector, and with limited contact with and influence on the MOFEC, the Bank has had no influence on the institutional or organizational aspects of the MOFEC. It made no headway in policy dialogue. Some changes are currently underway, but even these are being resisted. Outside the MOFEC, some beneficial impact is evident in empowering civil society and furthering participatory processes in forest management and policy. The impact has so far been limited, but it is increasing.

Sustainability

The issue of sustainability is not relevant in the period before the financial crisis, as the Bank had few achievements. The sustainability of the reforms pursued through the structural adjustment loans remains uncertain. The government has not shown the degree of commitment that would ensure retention of the reforms beyond the crisis period. Even among the reforms that have been implemented, some have been neutralized with other actions or implemented in a manner inconsistent with the spirit of the intended impact.

Bank Performance

The Bank performed at two different levels, and often not in coordination. At the sectoral level, the Bank's performance was satisfactory. It engaged the government in serious policy dialogue and correctly maintained its position. At the aggregate or country level, however, the Bank's performance was unsatisfactory until 1997. The Bank's country department did not actively pursue forest issues and failed to establish links between the CAS and its growth and poverty strategies to the forest sector. The Bank maintained its concerns generally about the environment and sustainability but failed to deal with the specific issues. This diluted the impact of the sectoral policy dialogue, and sent mixed signals to the government about the seriousness of its concern for environmental sustainability. Mixed signals were also evident from the piecemeal ap-

proach to other forest-related issues it tried to pursue through component and conservation projects. Since 1997, the Bank has pursued reforms in the sector and has raised the issues to the level of national priority. Overall, the Bank's performance is rated marginally satisfactory.

Borrower Performance

In many respects, the Indonesian experience is similar to that of many other countries, as other case studies from the OED review have shown, and in other respects it is unique. Indonesia has not followed its own stated objectives of equity and sustainability along with economic growth. While conflicts between national and global objectives, local and national objectives, as well as growth and conservation objectives are observed in many countries, Indonesia is distinctive in the extreme inequity in the distribution of returns from its natural capital. There are many reasons for the MOFEC to be unhappy in its current situation. It is understandably unhappy at the loss of its authority in decision making by the imposition of external "conditionalities," and because of the loss of its large and steady source of funds. In principle, arguments for keeping the reforestation fund in the MOFEC to finance its activities are strong, as experience from other countries shows that forest ministries have traditionally been underfunded to carry out their mandate. In this regard, until recently MOFEC was in an enviable position. However, its past actions have clearly demonstrated that it has not carried out its custody in a responsible or beneficial manner. Also, MOFEC has failed to demonstrate commitment to real reforms. The new mode of decision making, involving a more open and consultative process, is something that the ministry is not used to and is not something it particularly likes.

The performance of the borrower has been highly unsatisfactory. Only recently have reforms been instituted, and then only under duress. Many of these reforms have so far not been followed in action or in spirit, but only "on paper."

Lessons and Implications for the Future

The recent economic and political events provide Indonesia a unique opportunity to pursue critical reforms. Some changes are already underway, of which the recent decentralization law and the adoption of more consultative processes for policy formulation and dialogue offer much promise. So far, however, progress has been limited: the process has been less transparent than desired and the actual changes fall short of expectations, as in the case of the new forestry law.

Other OED case studies find that forest ministries are underfunded and generally low in the hierarchy of government ministries. This has not been the case in Indonesia. Most ministries also tend to be conservative in their outlook, slow to reform, and have limited capacity. On the other hand, all country case studies of OED find that there are reform-minded officials, often the younger generation, who are keen to change the state of affairs and actively work with civil society and other development partners. In this regard, Indonesia is no different. At the same time, Bank experience has repeatedly shown that institutional change is slow and may take years of work, side by side with stakeholders and other partners interested in change. This long-term involvement and continuity in staffing has been an important source of the Bank's success in the forest sector in China, India, and Costa Rica, although in all cases there are areas where both the borrowers and the Bank could improve. These experiences offer both Indonesia and the Bank important lessons.

Indonesia needs to develop and, more importantly, enforce a clear forest policy that adequately meets the current challenges and can contribute to environmentally sustainable and equitable growth. The policy needs to address the sector's governance problems, the long-term sustainability of the economic benefits from forest resources, and equitable growth, and be particularly cognizant of the impacts on the losers and gainers among rural communities from the alternative patterns of domestic growth.³³ These complex issues can only be satisfactorily addressed through transparent and fully participatory consultations with all key stakeholders. Some critical issues to address are the legitimate rights to land and access to resources by local traditional communities, improving the information system to guide policy implementation by reliably monitoring the use and changes in forest resources, and establishing effective and non-discriminatory enforcement mechanisms. In short, Indonesia needs to develop a clear and legitimate policy and implementation framework, with buy-in from the civil society and the private sector, within which external development partners like the Bank can operate and assist.

The Bank in turn needs to make an important industry such as forestry an integral part of its country assistance strategy. It needs to adopt a genuinely multisectoral approach to address the issues in the forest sector given its role in governance, the macroeconomy, poverty reduction, and environmental management. The new comprehensive development framework provides the Bank with an approach in a way that

Table 6.1. Summary Evaluation of the Implementation of the 1991 Forest Strategy in Indonesia

	1991–94	1994–99
Strategy Implementation		
Did the Bank forest strategy for the country change from the pre-1991 period? ^a	No	No
Was change attributable to the 1991 Forest Strategy? ^a	n/a	n/a
Was the Bank's post-1991 Forest Strategy for the country responsive to the needs articulated by the country? ^a	No	No
Consistency of Bank strategy		
Was the Bank strategy consistent with the CAS? ^b	Partly	Partly
Did the country have a forest policy consistent with the Bank's policy? ^a	No	No
Did the Bank follow the principles of its involvement in the sector?^b		
Multisectoral approach	Negligibly	Partly
International cooperation	Partly	Mostly
Policy reform	Predominantly	Predominantly
Institutional reform	Predominantly	Predominantly
Preserving natural forests	Predominantly	Predominantly
Resource expansion and intensification	Predominantly	Predominantly
Were participatory approaches implemented? ^a	Negligibly	Mostly
Was the 1991 strategy implemented? ^b	Mostly	Mostly
Nature of Bank Interactions		
The forest sector strategy was implemented through: ^b		
CAS	Negligibly	Partly
ESW	Predominantly	Negligibly
Policy dialogue	Predominantly	Predominantly
Lending to forest sector	Negligibly	Negligibly
Lending to forest-related sectors	Partly	Negligibly
Forest conditionality in adjustment lending	Negligibly	Predominantly
Bank application of safeguards	Mostly	Mostly
Bank Outcomes		
Bank's forest sector strategy from country perspective: ^c		
Relevance	Substantial	Substantial
Efficacy	Negligible	Negligible
Efficiency	Negligible	Negligible
Is the impact of the Bank strategy in the country sustainable? ^a	No	Unclear
The Bank's Impact		
Did the country improve its forest cover? ^a	No	No
Did the country improve the way it addresses forest sector issues? ^b	Negligibly	Partly
What degree of impact did the Bank strategy have on the poor? ^c	Negligible	Negligible
Relevance for Future Strategy		
Does the Bank's 1991 Forest Strategy seem relevant from the perspective of the country? ^d	Substantially	Substantially
Is there government demand for Bank involvement in the forest sector? ^a	No	No
Is there demand from NGOs, the private sector, and professionals for Bank ^a involvement in the forest sector?	Yes	Yes
How was the country's forest policy embedded in its overall growth and poverty alleviation strategy? ^e	Very poorly	Poorly

a. Ratings choices: Yes, No, Not Applicable, and Unclear.

b. Ratings choices: Predominantly, Mostly, Partly, Negligibly, Not Applicable, and Unclear.

c. Ratings choices: High, Substantial, Modest, Negligible, Adverse, Substantially Adverse, and Unclear.

d. Ratings choices: Substantially, Partly, Negligibly, No, and Unclear.

e. Ratings choices: Very Well, Well, Poorly, Very Poorly, Unclear.

its previous focus on maintaining a lending program did not. This new paradigm, however, requires that the Bank maintain long-term involvement (not necessarily entailing lending) in the forest sector within the framework of a new and transparent forest policy in Indonesia. The task is complex and resource-intensive, and the Bank needs to employ all the instruments at its command, including considerably greater resources for non-lending services; developing partnerships with reform-minded institutions in the civil society and other donors; a proactive and constructive engagement of the private sector; maintaining an open and consultative policy dialogue; and developing a healthy mix of innovative instruments, including adjustment lending, learning and innovation loans, and adaptable lending.

The Bank needs to make a long-term commitment, with full participation of key stakeholders, to develop an effective implementation strategy to ensure the sustainability of reforms. It is critical that the Bank make its strategy and commitment widely known to the civil society and the donor community, a change from the past way of doing business by conducting dialogue confidentially with the government. This is necessary to build wider ownership of its reform proposals and ensure institutional change.



Annexes

A. Supplemental Tables

Table A.1. Categories of Production, Limited Production, and Convertible Production Forests

Province	Protection forest	Conservation forest	Production forest	Limited production forest	Convertible production forest	Other land use	Total
D. Iaceh	972,300	832,560	296,600	1,515,700	789,700	1,263,600	5,570,400
Sumatera Utara	1,543,500	253,600	516,300	1,735,500	388,500	2,676,800	7,114,200
Sumatera Barat	1,242,300	540,100	601,200	497,700	421,000	853,300	4,155,600
Riau	426,200	379,400	1,836,700	2,290,400	4,553,900	184,300	9,670,900
Jambi	205,200	645,600	1,091,600	401,300	732,900	1,780,200	4,856,800
Sumatera Selatan	775,600	605,800	2,120,400	495,100	1,031,500	5,120,400	10,148,800
Bengkulu	459,700	308,100	31,000	218,200	202,300	877,700	2,097,000
Lampung	341,300	389,100	263,600	45,900	145,000	2,175,800	3,360,800
Jakarta	0	0	1,000	0	0	58,000	59,000
Jawa Barat	218,900	208,700	507,200	0	89,300	3,596,600	4,620,700
Jawa Tengah	41,700	800	604,800	0	0	2,773,300	3,420,600
Yogyakarta	2,000	0	16,000	0	0	298,900	326,900
Jawa Timur	305,100	210,200	818,800	0	21,100	3,437,000	4,792,200
Bali	106,200	19,900	1,000	6,000	0	440,400	573,500
Nusa Tenggara Barat	554,300	146,000	225,400	158,700	923,700	6,500	2,014,600
Nusa Tenggara Timur	737,900	145,800	353,500	409,500	296,600	2,846,200	4,690,800
Timor Timur	441,400	40,500	61,200	151,600	17,900	820,800	1,533,400
Kalimantan Barat	2,296,700	1,279,500	1,651,200	3,163,800	1,551,800	4,619,900	14,562,200
Kalimantan Tengah	840,200	632,700	6,013,000	3,384,500	4,314,300	64,700	15,249,400
Kalimantan Selatan	441,200	127,900	1,127,000	248,600	567,000	1,196,900	3,708,600
Kalimantan Timur	2,866,900	1,783,700	4,287,100	5,601,200	4,716,200	253,000	19,508,100
Sulawesi Utara	327,700	416,600	128,800	703,800	303,400	765,200	2,645,500
Sulawesi Tengah	1,322,200	633,200	486,500	1,718,300	359,500	1,480,100	5,999,800
Sulawesi Tenggara	529,500	290,900	552,300	999,100	198,000	1,107,100	3,676,900
Sulawesi Selatan	2,029,600	125,100	171,600	1,038,200	233,400	2,541,900	6,139,800
Maluku	1,348,500	420,700	828,400	1,604,000	3,600,100	7,100	7,808,800
Irian Jaya	10,381,060	7,405,700	8,136,000	4,689,100	9,769,200	377,900	40,758,900
TOTAL	30,757,100	17,843,100	32,728,500	31,076,200	35,125,700	41,623,600	189,154,200
Total Java	567,700	419,700	1,946,800	0	110,400	10,105,800	13,250,400
Total excluding Java	30,189,400	17,423,400	30,781,700	31,076,200	35,015,300	31,517,800	176,003,800

Table A.2. Biological Diversity of Indonesia's Eight Biographic Regions

Island	Resident bird spp.	Bird endemism (%)	Mammal spp. richness	Mammal endemism (%)	Reptile spp. richness	Reptile endemism (%)	Relative plant spp. richness	Plant endemism (%)
Sumatra	465	5	194	10	217	11	820	11
Java	362	7	133	12	173	8	630	5
Borneo	420	6	201	48	254	24	900	33
Sulawesi	289	32	114	60	117	26	520	7
Lesser Sundas	242	60	41	12	77	22	150	3
Maluku	210	33	69	17	98	18	380	6
Irian	602	52	125	58	223	35	1030	55

Source: FAO/MacKinnon 1981, National Conservation Plan, vol. 1.

Table A.3. Major Terrestrial Habitats and Areas of Protected Habitat

Habitat	Original (km ²)	Area remaining (%)	Protected area (km ²)	Protected area (%)	Proposed area (km ²)	Proposed area (%)
Forest on Limestone	135,793	39.3	5,626	4.1	4,835	3.6
Freshwater Swamp	103,054	46.8	5,398	5.2	5,632	5.5
Health Forest	91,660	28.6	1,100	1.2	1,990	2.2
Ironwood Forest	3,420	34.2	280	8.2	20	0.6
Lowland Evergreen Forest	896,157	57.5	44,057	4.9	78,753	8.8
Montane Rainforest	206,233	77.1	43,567	21.1	24,049	11.7
Peat Swamp	219,252	78.8	14,326	6.5	8,641	3.9
Semi-Evergreen Forest	150,877	28.3	3,050	2.0	4,580	3.0
Tropical Pine Forest	3,215	60.0	500	15.6	220	6.8
Mangrove Forest	50,800	43.9	5,687	11.2	2,978	5.8
Forest on Ultrabasic	8,299	46.9	30	0.4	970	11.7
Monsoon Forest	24,192	38.0	1,060	4.4	2,325	9.6
Savanna	390	39.7	10	2.5	95	24.4
Alpine	2,170	100	740	34.1	258	11.8
Total	1,895,512	55.8	125,431	6.6	135,346	7.1

The areas of remaining habitats are based on forest cover figures from the early 1980s. Habitat loss has continued in the last decade.
Source: MacKinnon and Artha 1981; MacKinnon & MacKinnon 1986; Pelocz and Raspade 1989.

Table A.4. Protected Areas by Category

Classification	Number	Area in hectares
National Parks	30	10,397,419.89
Strict Nature Preserves	172	2,210,247.00
Nature Recreation Parks	76	285,647.00
Wildlife Reserves	45	3,576,928.00
Grand Forest Parks	11	247,373.00
Hunting Parks	13	234,392.00
Total	347	16,942,006.89

Source: Statistik PHPA 1996/1997.

Table A.5. Estate Crops on Plantations

Commodity	Area					Production				
	1994	1995	1996	1997 ^a	1998 ^b	1994	1995	1996	1997 ^a	1998 ^b
Perennial (I)										
Rubber	3,472,379	3,495,901	3,518,441	3,518,871	3,524,947	1,499,424	1,573,303	1,574,025	1,548,000	1,584,324
Coconut	3,551,300	3,773,956	3,738,051	3,726,810	3,748,921	2,649,034	2,704,256	2,760,888	2,752,090	2,755,593
Oil Palm	1,804,149	2,024,906	2,249,514	2,461,527	2,533,099	4,008,002	4,479,670	4,898,858	5,385,458	5,902,178
Coffee	1,140,385	1,107,511	1,159,079	1,115,235	1,156,538	796,637	942,063	1,584,876	1,109,000	1,302,907
Tea	163,824	152,431	143,462	139,062	140,548	450,191	457,801	459,206	453,956	455,119
Pepper	127,873	134,689	126,632	123,584	120,762	139,222	154,015	168,417	150,840	132,003
Clove	534,375	501,023	491,713	401,909	462,608	54,043	58,955	52,163	49,600	32,188
Cocoa	507,011	602,119	855,331	832,704	660,610	78,379	90,007	50,479	58,664	56,967
Kapok	282,864	207,553	271,773	254,615	260,099	200,001	304,666	375,909	307,060	370,500
Cashew nut	418,025	454,624	493,000	489,154	405,207	55,976	73,706	77,190	77,081	77,215
Nutmeg	52,067	50,954	50,045	59,945	59,974	72,077	74,995	67,676	55,870	60,027
Cassava	93,964	98,919	105,198	101,363	59,974	19,152	19,069	18,565	16,310	18,499
Vanilla	17,358	19,050	19,836	19,722	101,388	35,436	37,334	30,445	30,927	30,833
Kemiri	170,098	176,375	182,587	181,140	178,594	1,770	2,050	2,051	2,045	2,102
Asescs nut	82,421	74,038	75,754	75,204	75,386	64,182	71,240	76,613	55,778	66,255
Cardamom	7,314	5,583	5,550	5,338	5,494	30,207	32,131	32,801	32,401	32,605
Tamarind	8,999	6,040	6,309	8,785	8,284	1,588	1,146	1,390	1,421	1,515
G. Sugar	59,492	74,239	80,115	74,456	76,165	10,225	10,578	10,351	10,242	10,301
TOTAL I	12,708,899	13,054,050	13,381,300	13,519,118	13,702,801	10,410,999	11,325,479	11,944,359	12,391,578	13,133,115
Annual (II)										
Sugar cane	428,736	436,007	445,533	399,854	407,502	2,543,881	2,059,576	2,094,195	2,189,975	2,173,132
Tobacco	193,095	220,944	225,475	221,502	223,045	130,134	140,169	151,025	136,746	137,584
Cotton	34,724	32,342	34,002	28,174	81,450	14,200	7,533	7,750	5,194	75,565
Custor	2,338	10,319	10,096	10,300	10,500	991	1,846	1,335	1,300	1,300
Citronella	2,006	2,871	3,052	2,954	2,985	445	590	566,3440	570	570
Patchouli	7,539	4,713	4,250	3,808	5,655	9,070	4,253	2,055	3,008	7,233
Ginger	9,665	10,515	10,150	10,112	10,234	829	1,686	3,440	2,076	2,115
TOTAL II	10,554	12,256	14,037	13,934	14,021	75,991	82,651	50,471	80,348	80,351
Total I & II	689,005	729,997	745,196	591,118	755,252	2,585,001	2,298,266	2,340,559	2,420,017	2,477,830
	13,305,004	13,754,557	14,120,504	14,210,234	14,517,755	13,005,000	13,823,745	14,265,217	14,511,006	15,012,954

a. Preliminary.

b. Estimation.

Source: Department Pertanian, Statistik Perkebunan Indonesia (Statistical Estate Crops of Indonesia 1996-1998); Jakarta Direktorat Jenderal Perkebunan 1997.

Table A.6. Forest Utilization Statistics for Eight NTFPs, 1989–98

Year	Rattan (ton)	Pine resin (ton)	Agathis resin (ton)	Commodity sago (ton)	Turpentine (ton)	Silk (kg)	Kopal (ton)	Cajuput oil (liter)
PELITA V	375,423	236,513	45,744	12,762	33,002	0	0	1,122,105
1989/90	101,700	29,763	6,307	0	1,741			87,199
1990/91	52,170	38,150	1,0496	303	2,191			167,646
1991/92	64,020	37,141	9,539	3,075	8,593			274,124
1992/93	69,384	53,090	14,253	4,158	9,038			280,305
1993/94	88,149	78,369	5,149	5,226	11,439			312,831
PELITA VI	198,549	245,558	11,848	3,944	46,144	54,953	4,458	1,369,380
1994/95	78,340	74,204	0	0	13,175	18,611	2,057	332,478
1995/96	36,256	47,960	3,869	0	8,975	13,225	816	235,497
1996/97	51,564	53,736	1,556	0	10,294	9,677	821	469,948
1997/98	32,389	69,658	6,423	3,944	13,700	13,440	764	331,457
TOTAL	573,972	482,071	57,592	16,706	79,146	54,953	4,458	2,491,485

Source: Department Kehutanan dan Perkebunan, Directorate Jenderal Pengusahaan Hutan, Statistik Pengusahaan Hutan Tahun 1997/1998, Jakarta 1998.

Table A.7. Central Board of Statistics Record for 10 ISIC Industries

Industry Name	ISIC code	Number of establishments (with > 20 employees)	Employment in 000 workers	Wage bill in million rupiah	Value of new materials in million rupiah	Value of output in million rupiah	Value added in million rupiah
Wood containers	33120	62 (5)	3	5	19	33	12
Bamboo/rattan plait	33131	86 (19)	8	13	44	85	35
Other plait	33132	11 (0)	0.3	0.3	0.5	2	1
Wood carvings	33140	103 (20)	8	14.6	23	63	23
Preserved wood	33151	4 (0)	0.2	0.5	Negligible	2	1
Preserved rattan	33152	37 (6)	2.5	2.5	13	25	9
Other wood products	33190	133 (33)	15	26	124	243	100
Wood furniture	33211	1098 (243)	107	250	951	1852	686
Bamboo/rattan furniture	33212	227 (117)	47	109	298	591	296
Bamboo/rattan kitchen utensils	33220	11 (5)	1.4	1.8	5	9	3

Table A.8. Active Forest Concession

Year	Concession (unit)	Hectares (millions)	Year	Concession (unit)	Hectares (millions)
PELITA V			PELITA VI		
1989/1990	557	58.8	1994/1995	540	61.03
1990/1991	564	59.62	1995/1996	487	56.17
1991/1992	567	60.48	1996/1997	447	54.09
1992/1993	580	61.38	1997/1998	427	52.28
1993/1994	575	61.70			

Source: Department Kehutanan dan Perkebunan, Statistik Pengusahaan Hutan Tahun 1997/1998, Jakarta, 1998.

Table A.9. ISCP—Implementation of Industrial Timber Plantations

Year	Liberation cutting	Seedlings procurement		Enrichment (ha)	Tending (ha)	Continued tending		
		RSI (ha)	(x1000 bt./sdl.)			(ha)	(ha)	
PELITA V								
1989/1990	459,521	525,671	200,744	186,798	12,782			
1990/1991	1,234,532	904,031	170,383	321,285	148,258			
1991/1992	1,208,504	1,203,957	137,900	654,694	552,728			
1992/1993	971,205	983,143	108,060	528,903	661,774			
1993/1994	701,160	700,627	63,737	302,792	402,699	367,533		
PELITA VI								
1994/1995	573,938	571,399	64,892	296,691	626,236	653,255		

Year	Planting preparation (ha)	RSI (ha)	Liberation cutting (ha)	Seedling procurement (x1000 bt./sdl.)	Enrichment/rehabilitation	TTE (ha)	Tending		RST (ha)
							II (ha)	III (ha)	
1.00	515,824	406,094	403,865	55,941	383,635	412,500	705,899	550,184	66,559
1996/1997	419,009	501,220	447,151	73,633	189,966	682,639	777,202		133,031
1997/1998	309,062	449,517	323,769	89,237	189,005	622,107	571,320		139,770

Residual Stand Inventory (RSI)

Tree Tending and Enrichment Planting (TTE)

Residual Stand Training (RST)

Source: Department Kehutanan Ran Perkebunan, Statistic Pengusahaan Hutan Tahun 1997/1998, Jakarta, 1998.

Table A.10. Establishment of Industrial Timber Plantation

Year	Pulpwood (ha)	Construction wood (ha)	HTI-TRANS (ha)	Superior species (ha)	Total plantation (ha)
PELITA V					
1989/90	396,071	594,873	61,141	71,895	1,123,980
1990/91	29,160	102,495	0		131,655
1991/92	65,661	104,213	0		169,874
1992/93	104,222	109,769	0		213,991
1993/94	83,962	139,771	11,120		234,853
1993/94	113,066	138,625	50,021	71,895	373,607
PELITA VI					
1994/95	553,343	212,360	192,594	322,087	1,280,384
1994/95	117,940	56,253	44,620	77,973	296,786
1995/96	162,200	54,449	48,551	61,248	326,448
1996/97	172,320	63,477	60,420	94,324	390,542
1997/98	100,883	38,181	39,003	88,542	266,609
TOTAL	949,414	807,234	253,734	393,982	2,404,364

Source: Department Kehutanan Ran Perkebunan, Statistic Pengusahaan Hutan Tahun 1997/1998, Jakarta, 1998.

Table A.11. Harvest Volume of Each Category of Forest Operation

Source of production	Annual log production (m ³)				TOTAL
	1994/95	1995/96	1996/97	1997/98 ^a	
Forest concession/ natural forest harvest	17,308,737.29	16,943,933.26	15,268,134.46	15,597,546.30	65,118,351.31
Land-clearing harvest	4,708,696.46	5,398,195.76	8,021,328.48	10,038,228.00	28,166,448.70
Community woodlots	138,105.62	124,883.47	682,006.35	1,266,455.20	2,211,450.64
Planted forest by Perum Perlutani					
Industrial timber plantation	0.00	514,692.45	474,267.60	425,892.80	1,414,852.85
TOTAL	24,027,276.55	24,850,060.94	26,069,281.89	29,149,419.30	104,096,038.68

a. Data Sementara.

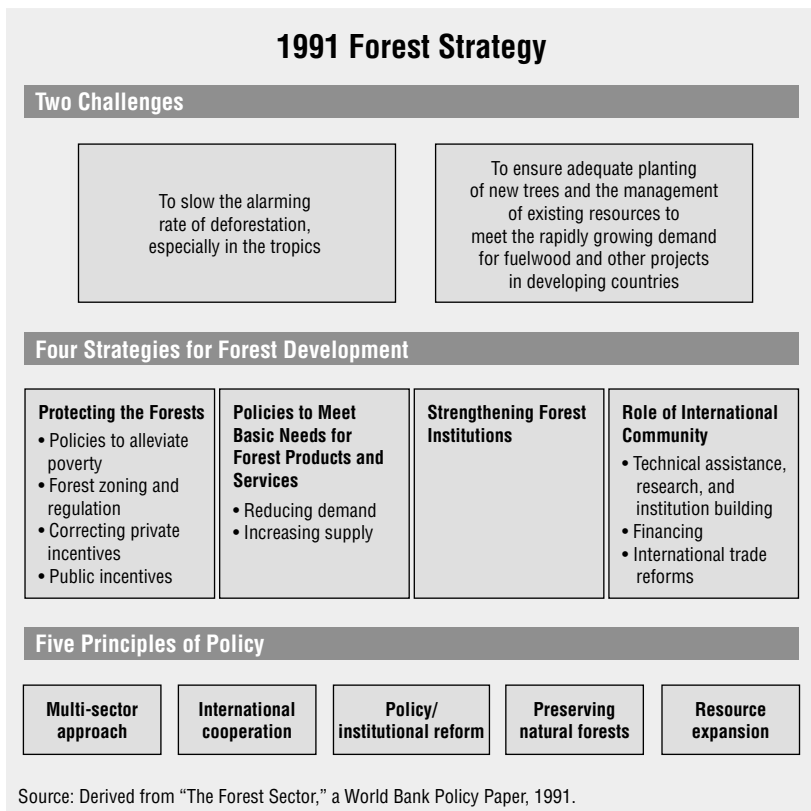
Source: Department Kehutanan Ran Perkebunan, Statistic Pengusahaan Hutan Tahun 1997/1998, Jakarta, 1998.

B. The 1991 Forest Strategy

The World Bank forest strategy sought to address rapid deforestation, especially of tropical moist forests, and inadequate planting of new trees to meet the rapidly growing demand for wood products. These twin challenges were the consequence of five forces:

- *Externalities* that interfered with the free interplay of market forces with the potential to bring about socially desired outcomes
- Strong *incentives* to cut trees
- Weak *property rights* in many forests and wooded areas
- High private *discount rates* among those encroaching on the forests and
- Inappropriate government *policies*, particularly concession arrangements.

The Bank's strategy therefore promised to promote the conservation of natural forests and the sustainable development of managed forest



resources. The strategy it outlined consisted of policies to alleviate poverty, forest zoning and regulation, correction of private incentives, and public investments. The strategy also proposed reducing demand through investments in research and technology, increasing the supply of essentials through farm forestry, and increasing market efficiency. Government policies and programs, the strategy said, should aim to change the incentives and institutional structures that lead to excessive deforestation and inadequate tree planting and prevent the use of good practices in forest management. Under the strategy, international cooperation and assistance were to ensure that global externalities were internalized locally and the efforts of governments and international organizations were to be coordinated.

Five principles were elucidated to underpin Bank involvement in the forest sector:

- Adopt a *multisectoral approach* in the design and implementation of forest operations.
- Support *international cooperation* in the formulation and adoption of legal instruments conducive to sustainable forest development and conservation.
- Promote *policy reform and institutional strengthening* by helping governments to identify and rectify market and policy failures that encourage deforestation and unsustainable land use.
- Finance operations that lead to socially, environmentally, and economically sustainable *resource expansion and intensification*.
- Support initiatives that *preserve intact forest areas*.

Fulfilling this commitment required five things of Bank-financed projects:

- Adoption of policies and an institutional framework consistent with sustainability and a participatory approach to the management of natural forests
- Adoption of comprehensive and environmentally sound conservation and development plans based on a clear definition of the roles and the rights of the key stakeholders including local people
- Basing commercial use of forests on adequate social, environmental, and economic assessments
- Making adequate provisions to maintain biodiversity and safeguard the interests of forest dwellers, particularly indigenous peoples
- Establishing adequate enforcement mechanisms.

C. Analysis of the World Bank Lending Portfolio for Indonesia

This analysis of the World Bank lending history for Indonesia covers a 16-year period from 1984 to 1999. In order to analyze the effect of the 1991 forest strategy on Bank lending, this period has been divided into a pre-strategy period (1984–91) and a post-strategy period (1992–99).

Before 1991, the World Bank financed 79 projects with a total commitment of US\$10.5 billion, which made Indonesia the fourth-largest recipient of Bank lending, representing 7 percent of the total Bank lending. Seventeen percent of these commitments were allocated for seven projects in the electric power and energy sector. The agriculture sector had 20 projects and received approximately 16 percent of the total lending. The transportation sector followed with eight projects and 14 percent of the total lending. There were also four multisector projects with 11 percent of the total commitments. There were no environment sector projects during this period. The distribution of project lending for Indonesia by sector is presented in table C.1.

After 1991, World Bank lending to Indonesia increased by 2 percent in commitments, making it the sixth-largest recipient, with almost 6 percent of the total Bank lending. There were 84 projects financed with total commitments of US\$10.7 billion. The commitments to the agriculture sector decreased by 26 percent, reflecting 14 projects and US\$1.2 billion. Lending to the electric power and energy sector decreased by 8 percent and involved 7 projects with commitments of US\$1.6 billion. Transportation sector lending increased by 6 percent in 10 projects worth commitments of US\$1.5 billion. Unlike the pre-1991 period, there were four environment sector projects with a commitment of US\$198 million. The overall distribution of project lending by sector and its comparison to the pre-1991 period is presented in table C.1.

Examining the World Bank lending to Indonesia by lending instrument for the pre-1991 period indicates that there were four adjustment lending operations representing 11 percent of the total lending. The remaining 89 percent was allocated for 75 projects that involved various investment lending instruments and commitments of US\$9.2 billion. However, after 1991, commitments for the adjustment lending operations increased by 100 percent even though the number of adjustment operations remained at four. A breakdown of Bank lending by lending instruments is shown in table C.2.

An overview of World Bank lending by its primary program objectives in the pre-1991 period shows that 43 percent of the total projects were concentrated on environmentally sustainable development, representing 52 percent of the total commitments. Poverty reduction and human resource

Table C.1. World Bank Lending to Indonesia by Sector, 1984-99

Sector	1984-91				1992-99				1984-91—1992-99	
	No. of projects	Commitments (US\$M)	No. of projects (%)	Commitments (%)	No. of projects	Commitments (US\$M)	No. of projects (%)	Commitments (%)	Change in commitments (US\$M)	Change in commitments (%)
Agriculture	20	1,642.4	25.32	15.67	14	1,208.1	16.67	11.25	-434.3	-26
Education	12	1,094.4	15.19	10.44	18	1,217.2	21.43	11.33	122.8	11
Electric power and energy	7	1,781	8.86	16.99	7	1,645.5	8.33	15.32	-135.5	-8
Environment					4	198.4	4.76	1.85	198.4	
Finance	6	944.6	7.59	9.01	4	373.4	4.76	3.48	-571.2	-60
Industry	3	342.7	3.80	3.27	1	47	1.19	0.44	-295.7	-86
Multisector	4	1,200	5.06	11.45	2	1,500	2.38	13.96	300	25
Oil and gas	2	120	2.53	1.14					-120	-100
Population, health, nutrition	5	265.9	6.33	2.54	7	342	8.33	3.18	76.1	29
Public sector management	2	147.5	2.53	1.41	4	296.5	4.76	2.76	149	101
Social					1	600	1.19	5.59	600	
Telecommunications	2	364.5	2.53	3.48	3	734.5	3.57	6.84	370	102
Transportation	8	1,420	10.13	13.55	10	1,502.1	11.90	13.98	82.1	6
Urban development	5	825.6	6.33	7.88	8	997.7	9.52	9.29	172.1	21
Water supply and sanitation	3	333.3	3.80	3.18	1	80	1.19	0.74	-253.3	-76
Grand total	79	10,481.9	100.00	100.00	84	10,742.4	100.00	100.00	260.5	2

Table C.2. World Bank Lending to Indonesia by Lending Instrument, 1984-99

Lending type	1984-91				1992-99				1984-91—1992-99	
	No. of projects	Commitments (US\$M)	No. of projects	Commitments (%)	No. of projects	Commitments (US\$M)	No. of projects	Commitments (%)	Change in commitments (US\$M)	Change in commitments (%)
Adjustment	2	600	2.53	5.72	1	300	1.19	2.79	-300	-50
Structural Adjustment Loan	2	600	2.53	5.72	3	2,100	3.57	19.55	1,500	250
Adjustment total	4	1,200	5.06	11.45	4	2,400	4.76	22.34	1,200	100
Investment					1	6.9	1.19	0.06	6.9	
Adaptable Program Loan					1	42.1	1.19	0.39	42.1	
Emergency Reconstruction Loan	6	944.6	7.59	9.01	2	413.1	2.38	3.85	-531.5	-56
Financial Intermediary Loan					1	5	1.19	0.05	5	
Learning and Innovation Loan					68	7,169.8	80.95	66.74	1,457.6	26
Specific Investment Loan	50	5,712.2	63.29	54.50	2	584	2.38	5.44	-1,968.6	-77
Specific Investment & Maintenance	16	2,552.6	20.25	24.35	5	121.5	5.95	1.13	49	68
Technical Assistance Loan	3	72.5	3.80	0.69	80	8,342.4	95.24	77.66	-939.5	-10
Investment total	75	9,281.9	94.94	88.55	84	10,742.4	100.00	100.00	260.5	2
Grand total	79	10,481.9	100.00	100.00	84	10,742.4	100.00	100.00		

Table C.3. World Bank Lending to Indonesia by Primary Program Objective, 1984-99

Primary prog. objective	1984-91				1992-99				1984-91—1992-99	
	No. of projects	Commitments (US\$M)	No. of projects	Commitments (%)	No. of projects	Commitments (US\$M)	No. of projects	Commitments (%)	Change in commitments (US\$M)	Change in commitments (%)
Economic management	4	336.4	5.06	3.21	11	2,170.4	13.10	20.20	1,834	545
Enviro. sustainable development	34	5,477.6	43.04	52.26	31	5,320.6	36.90	49.53	-157	-3
Poverty reduction and human resource development	28	2,284.3	35.44	21.79	36	2,860.9	42.86	26.63	576.6	25
Private sector development	8	1,440	10.13	13.74	6	390.5	7.14	3.64	-1,049.5	-73
Miscellaneous social objectives	1	300	1.27	2.86					-300	-100
Not stated	4	643.6	5.06	6.14					-643.6	-100
Grand total	79	10,481.9	100.00	100.00	84	10,742.4	100.00	100.00	260.5	2

development were the primary objectives of 38 projects, which reflected 22 percent of the total commitments. Private sector development was the primary goal for eight projects and represented 14 percent of the total commitments. Four projects focused on economic management as their main objective and involved 3 percent of the total commitments.

After 1991, the most significant change was the increase in the number of projects and commitments whose primary objective was economic management. There were 11 such projects, which represented 20 percent of the total lending. Environmentally sustainable development continued to be the main goal of 37 percent of the projects and 50 percent of all commitments. Similarly, poverty reduction and human resource development was the main target of 36 projects, representing 43 percent of all projects and 27 percent of total lending. The primary program objectives for both periods are presented in table C.3.

Forest and Forest Component Projects in Indonesia

After 1991, the World Bank approved two direct forest projects with total commitments of US\$54 million, which is only one-half percent of total commitments to Indonesia. Given that the World Bank financed a total of 41 direct forest projects with total commitments of US\$1.68 billion, the direct forest lending to Indonesia represents only 3 percent of total forest lending and 5 percent of forest projects.

After 1991, the World Bank financed 34 direct forest projects with commitments of US\$1.72 billion, but none of these projects was in Indonesia. The breakdown for direct forest projects by country and region is presented in table C.7.

In addition to the direct forest projects, numerous operations are classified as non-forest projects but may have forest components. These “indirect forest projects” or “forest component projects” are found in various sub-sectors of agriculture and, recently, in the sub-sectors of environment, particularly in natural resource management.

Before 1991, the World Bank financed 32 forest component operations with total project commitments of US\$1.94 billion, of which US\$291 million was committed for forest-specific activities, but Indonesia did not have any of these indirect forest projects.

However, after 1991, the overall number of forest component projects substantially increased to 94 projects with total project commitments of US\$6.2 billion of which US\$1.79 billion was related to forest activities. This increase is also reflected in Indonesia, which had seven of these component projects with total project commitments of US\$298

million, out of which US\$88 million was for forest-specific activities. The distribution of forest component projects is presented in table C.8.

Operations Evaluation Department (OED) Evaluation Results

Bank-Wide Operations in Indonesia

The Operations Evaluations Department (OED) evaluated 66 projects in Indonesia that exited the portfolio during 1992–98, judging them on outcome, sustainability, institutional development impact, bank performance (project identification, project appraisal, and project supervision), and borrower performance (project preparation, project implementation, and project compliance). These projects had net commitments of US\$8.1 billion (1996 dollars).

OED determined that the outcome of 55 projects was satisfactory, based on their relevance, efficacy, and efficiency—83 percent of the total projects and 89 percent of the total commitments. Sustainability was rated likely for 41 projects—62 percent of the projects and 66 percent of the total commitments. Institutional development impact was considered substantial for 26 projects—39 percent of the projects and 38 percent of the total commitments. The ratings for all OED-evaluated projects are presented in tables C.4.1–4.3.

An overall look at the Bank performance on project identification, appraisal, and supervision shows that project identification was satisfactory for 57 projects—86 percent of the projects and 92 percent of the commitments. Project appraisal was satisfactory for 47 projects—71 percent of the projects and 75 percent of commitments. Project supervision was rated satisfactory for 55 projects—83 percent of the projects and 80 percent of the total commitments.

Borrower performance ratings on project preparation, implementation, and compliance indicate that project preparation was satisfactory for 52 projects—79 percent of the projects and 88 percent of the total commitments. Project implementation was considered satisfactory for 53 projects—80 percent of the projects and 81 percent of the total commitments. Finally, project compliance was satisfactory for 55 projects—83 percent of the projects and 85 percent of total commitments.

Agriculture Sector Operations

The ratings for the lending operations evaluated in the agriculture sector seem to be below the ratings for the entire portfolio for project outcome and sustainability, but slightly higher for institutional development impact. A total of 21 operations with commitments of US\$1.8 billion were evaluated in the agriculture sector. The outcome of 16 projects was rated satisfactory—76 percent of the projects and 80 per-

cent of the commitments. The sustainability rating was likely for 10 agriculture projects—48 percent of the projects and 50 percent of commitments. The institutional development impact was rated substantial for 9 projects—43 percent of the projects and 41 of the commitments.

Evaluating Bank performance on project identification, appraisal, and supervision of the agriculture sector operations shows that project identification was satisfactory for 17 projects—81 percent of the projects and 92 percent of the commitments. Project appraisal was satisfactory for 11 projects—52 percent of the projects and 46 percent of the commitments. Project supervision was rated satisfactory for 15 projects—71 percent of the projects and 61 percent of commitments. The project identification, appraisal, and supervision rating in the agriculture sector projects tended to be lower than the ratings for the entire portfolio.

Borrower performance ratings in the agriculture sector for project preparation, implementation and compliance show that project preparation was deemed satisfactory for 13 operations—62 percent of the projects and 70 percent of the total commitments. Project implementation was satisfactory for 16 projects—76 percent of the projects and total commitments. Finally, project compliance was considered satisfactory for 14 projects—67 percent of the projects and 65 percent of total commitments. It appears that the project preparation and implementation, and compliance ratings for the agriculture projects were lower than the ratings for the entire portfolio.

Forest Sector Operations

OED evaluated two forest operations with net commitments of US\$39 million. The outcome of one project was rated satisfactory—50 percent of the projects and 75 percent of the commitments. Both projects were rated poorly on sustainability and institutional development impact. It is difficult to compare the percentage of forest project ratings with those of the agriculture sector or the overall portfolio since the number of evaluated projects is very small.

Bank performance in the forest sector operations indicates that project supervision was satisfactory for both projects, but project identification and appraisal were satisfactory for only one project—50 percent of the projects and 75 percent of the commitments.

In terms of the borrower performance, project implementation was satisfactory for both projects, but project preparation and project compliance were satisfactory for only one of the projects.

Operations with Forest Components

OED evaluated no forest component projects in Indonesia.

Quality Assurance Group “At Risk” Ratings for Active Projects in Indonesia

Overall Portfolio Ratings

The Quality Assurance Group (QAG) maintains a database of all active projects that identifies the risk level of the projects. The rating has two levels: *at risk* (potentially or actually) and *not at risk*. A project’s rating is based on current supervision reports, which indicate project performance based on effectiveness delays, compliance with legal covenants, management performance, availability of counterpart funds, procurement progress, environment/resettlement problems, slow disbursements, history of past problems, risky country, risky sub-sector, and economic management problems.

As of June 1999, the World Bank had 72 active projects in Indonesia with total commitments of US\$7.6 billion. Of these, QAG rates 51 operations “not at risk”—71 percent of the total projects and 73 percent of the total commitments. Nineteen projects (six projects in the electric power and energy sector; four projects in the agriculture sector; and two projects each in the population health and nutrition, transportation, and urban development; and one project each in social and transportation sectors) with commitments of US\$2.0 billion are rated “actually at risk.” There are also two projects (one each in the public sector management and finance sectors) with commitments of US\$44 million that are rated as “potentially at risk.” The most significant deficiencies in the portfolio are economic management, risky sub-sector, slow disbursements, financial performance, counterpart funds, and management performance.

Agriculture Project Ratings

The agriculture sector has 12 active operations with net commitments of US\$785 million. The performance of the agriculture sector seems to be slightly weaker than the overall portfolio performance, given that 8 projects are rated “not at risk”—67 percent of the projects and 83 percent of the total commitments. The remaining four projects are rated “at risk.” The most significant problems are economic management, slow disbursements, financial performance, procurement progress, counterpart funds, and management performance.

Forest and Forest Component Project Ratings

There are no active forest projects in Indonesia. However, there are seven active forest component projects with net commitments of US\$410 million. Three of these projects are rated “not at risk” with commitments of US\$113 million—43 percent of the projects and 49 percent of the commitments—and the remaining four projects are considered to be “at risk.”

Table C.4.1. Overall Performance Ratings for OED Evaluated Projects, 1992–98

Sector/subsector	Evaluated projects		Outcome satisfactory			
	No. of projects	Commitments FY96 (US\$M)	No. of projects	Commitments FY96 (US\$M)	No. of projects (%)	Commitments (%)
Agriculture	21	1,783.32	16	1,429.44	76	80
Agency reform	1	13.25	1	13.25	100	100
Agricultural extension	1	59.67				
Agriculture adjustment	3	166.48	3	166.48	100	100
Agro-industry & marketing	1	79.1	1	79.1	100	100
Fisheries & aquaculture	1	18.38	1	18.38	100	100
Forestry	2	39.06	1	29.31	50	75
Irrigation & drainage	7	1,058.01	6	977.28	86	92
Livestock	1	30.42	1	30.42	100	100
Perennial crops	3	283.38	1	79.65	33	28
Research	1	35.57	1	35.57	100	100
Education	10	1,043.68	9	980.03	90	94
Higher education	4	589.23	4	589.23	100	100
Other education	1	63.65				
Secondary education	1	142.95	1	142.95	100	100
Vocational / teacher training	4	247.85	4	247.85	100	100
Electric power & other energy	6	1,637.55	6	1,637.55	100	100
Distribution & transmission	4	1,009.88	4	1,009.88	100	100
Other power & energy conversion	1	272.53	1	272.53	100	100
Thermal	1	355.14	1	355.14	100	100
Finance	5	723.45	5	723.45	100	100
Financial sector development	2	373.98	2	373.98	100	100
Other finance	3	349.47	3	349.47	100	100
Industry	3	337.17				
Fertilizer & other chemicals	1	217.64				
Other industry	1	20.16				
Small-scale enterprise	1	99.37				
Oil & gas	1	37.35	1	37.35	100	100
Refining, storage & distribution	1	37.35	1	37.35	100	100
Population, health & nutrition	5	271.26	4	224.61	80	83
Basic health	2	91.44	1	44.79	50	49
Targeted health	3	179.82	3	179.82	100	100
Public sector management	2	144.21	2	144.21	100	100
Institutional development	2	144.21	2	144.21	100	100
Telecommunications	1	310.41	1	310.41	100	100
Telecommunications & information	1	310.41	1	310.41	100	100
Transportation	7	1,083.01	7	1,083.01	100	100
Highways	2	549.54	2	549.54	100	100
Ports & waterways	1	96.49	1	96.49	100	100
Railways	1	29.83	1	29.83	100	100
Rural roads	1	189.67	1	189.67	100	100
Urban transport	2	217.48	2	217.48	100	100
Urban development	2	409.05	2	409.05	100	100
Urban development adjustment	1	175.17	1	175.17	100	100
Urban housing	1	233.88	1	233.88	100	100
Water supply & sanitation	3	330.7	2	229.44	67	69
Urban water supply	3	330.7	2	229.44	67	69
Grand total	66	8,111.16	55	7,208.55	83	89

Table C.4.1. Overall Performance Ratings for OED Evaluated Projects, 1992–98 (cont'd)

Sustainability likely				ID impact substantial			
No. of projects	Commitments FY96 (US\$M)	No. of projects (%)	Commitments (%)	No. of projects	Commitments FY96 (US\$M)	No. of projects (%)	Commitments (%)
10	889.47	48	50	9	735.38	43	41
1	13.25	100	100	1	13.25	100	100
2	48.28	67	29	2	48.28	67	29
				1	79.1	100	100
4	682.3	57	64	3	528.76	43	50
1	30.42	100	100	1	30.42	100	100
1	79.65	33	28				
1	35.57	100	100	1	35.57	100	100
8	837.08	80	80	7	687.57	70	66
4	589.23	100	100	3	439.72	75	75
4	247.85	100	100	4	247.85	100	100
5	1,472.76	83	90	1	355.14	17	22
3	845.09	75	84				
1	272.53	100	100				
1	355.14	100	100	1	355.14	100	100
5	723.45	100	100	2	240.39	40	33
2	373.98	100	100	1	126.58	50	34
3	349.47	100	100	1	113.81	33	33
1	20.16	33	6				
1	20.16	100	100				
1	37.35	100	100	1	37.35	100	100
1	37.35	100	100	1	37.35	100	100
5	271.26	100	100	2	145.94	40	54
2	91.44	100	100	1	44.79	50	49
3	179.82	100	100	1	101.15	33	56
2	144.21	100	100	1	119.8	50	83
2	144.21	100	100	1	119.8	50	83
1	310.41	100	100	1	310.41	100	100
1	310.41	100	100	1	310.41	100	100
3	626.49	43	58	2	436.82	29	40
1	340.33	50	62	1	340.33	50	62
1	96.49	100	100	1	96.49	100	100
1	189.67	100	100				
41	5,332.64	62	66	26	3,068.8	39	38

Table C.4.2. Bank Performance Ratings for OED Evaluated Projects, 1992–98

Sector/subsector	Evaluated projects		Identification satisfactory			
	No. of projects	Commitments FY96 (US\$M)	No. of projects	Commitments FY96 (US\$M)	No. of projects (%)	Commitments (%)
Agriculture	21	1,783.32	17	1645	81	92
Agency reform	1	13.25	1	13.25	100	100
Agricultural extension	1	59.67				
Agriculture adjustment	3	166.48	3	166.48	100	100
Agro-industry & marketing	1	79.1	1	79.1	100	100
Fisheries & aquaculture	1	18.38				
Forestry	2	39.06	1	29.31	50	75
Irrigation & drainage	7	1,058.01	6	1,007.49	86	95
Livestock	1	30.42	1	30.42	100	100
Perennial crops	3	283.38	3	283.38	100	100
Research	1	35.57	1	35.57	100	100
Education	10	1,043.68	8	837.08	80	80
Higher education	4	589.23	4	589.23	100	100
Other education	1	63.65				
Secondary education	1	142.95				
Vocational / teacher training	4	247.85	4	247.85	100	100
Electric power & other energy	6	1,637.55	6	1,637.55	100	100
Distribution & transmission	4	1,009.88	4	1,009.88	100	100
Other power & energy conversion	1	272.53	1	272.53	100	100
Thermal	1	355.14	1	355.14	100	100
Finance	5	723.45	5	723.45	100	100
Financial sector development	2	373.98	2	373.98	100	100
Other finance	3	349.47	3	349.47	100	100
Industry	3	337.17	1	99.37	33	29
Fertilizer & other chemicals	1	217.64				
Other industry	1	20.16				
Small-scale enterprise	1	99.37	1	99.37	100	100
Oil & gas	1	37.35	1	37.35	100	100
Refining, storage & distribution	1	37.35	1	37.35	100	100
Population, health & nutrition	5	271.26	5	271.26	100	100
Basic health	2	91.44	2	91.44	100	100
Targeted health	3	179.82	3	179.82	100	100
Public sector management	2	144.21	2	144.21	100	100
Institutional development	2	144.21	2	144.21	100	100
Telecommunications	1	310.41	1	310.41	100	100
Telecommunications & information	1	310.41	1	310.41	100	100
Transportation	7	1,083.01	7	1,083.01	100	100
Highways	2	549.54	2	549.54	100	100
Ports & waterways	1	96.49	1	96.49	100	100
Railways	1	29.83	1	29.83	100	100
Rural roads	1	189.67	1	189.67	100	100
Urban transport	2	217.48	2	217.48	100	100
Urban development	2	409.05	2	409.05	100	100
Urban development adjustment	1	175.17	1	175.17	100	100
Urban housing	1	233.88	1	233.88	100	100
Water supply & sanitation	3	330.7	2	281.4	67	85
Urban water supply	3	330.7	2	281.4	67	85
Grand total	66	8,111.16	57	7,479.14	86	92

Table C.4.2. Bank Performance Ratings for OED Evaluated Projects, 1992–98 (cont'd)

Appraisal satisfactory				Supervision satisfactory			
No. of projects	Commitments FY96 (US\$M)	No. of projects (%)	Commitments (%)	No. of projects	Commitments FY96 (US\$M)	No. of projects (%)	Commitments (%)
11	825.59	52	46	15	1,092.18	71	61
1	13.25	100	100	1	13.25	100	100
				1	59.67	100	100
2	48.28	67	29	1	35.46	33	21
				1	79.1	100	100
				1	18.38	100	100
1	29.31	50	75	2	39.06	100	100
4	589.11	57	56	4	609.49	57	58
1	30.42	100	100	1	30.42	100	100
1	79.65	33	28	2	171.78	67	61
1	35.57	100	100	1	35.57	100	100
8	837.08	80	80	9	980.03	90	94
4	589.23	100	100	4	589.23	100	100
				1	142.95	100	100
4	247.85	100	100	4	247.85	100	100
5	1,311.78	83	80	4	1,117.62	67	68
3	684.11	75	68	3	845.09	75	84
1	272.53	100	100	1	272.53	100	100
1	355.14	100	100				
5	723.45	100	100	4	476.05	80	66
2	373.98	100	100	1	126.58	50	34
3	349.47	100	100	3	349.47	100	100
				2	237.8	67	71
				1	217.64	100	100
				1	20.16	100	100
1	37.35	100	100	1	37.35	100	100
1	37.35	100	100	1	37.35	100	100
5	271.26	100	100	5	271.26	100	100
2	91.44	100	100	2	91.44	100	100
3	179.82	100	100	3	179.82	100	100
1	119.8	50	83	2	144.21	100	100
1	119.8	50	83	2	144.21	100	100
1	310.41	100	100	1	310.41	100	100
1	310.41	100	100	1	310.41	100	100
7	1,083.01	100	100	7	1,083.01	100	100
2	549.54	100	100	2	549.54	100	100
1	96.49	100	100	1	96.49	100	100
1	29.83	100	100	1	29.83	100	100
1	189.67	100	100	1	189.67	100	100
2	217.48	100	100	2	217.48	100	100
2	409.05	100	100	2	409.05	100	100
1	175.17	100	100	1	175.17	100	100
1	233.88	100	100	1	233.88	100	100
1	180.14	33	54	3	330.7	100	100
1	180.14	33	54	3	330.7	100	100
47	6,108.92	71	75	55	6,489.67	83	80

Table C.4.3. Borrower Performance Ratings for OED Evaluated Projects, 1992–98

Sector/subsector	Evaluated projects		Preparation satisfactory			
	No. of projects	Commitments FY96 (US\$M)	No. of projects	Commitments FY96 (US\$M)	No. of projects (%)	Commitments (%)
Agriculture	21	1,783.32	13	1,243.97	62	70
Agency reform	1	13.25	1	13.25	100	100
Agricultural extension	1	59.67				
Agriculture adjustment	3	166.48	2	48.28	67	29
Agro-industry & marketing	1	79.1				
Fisheries & aquaculture	1	18.38				
Forestry	2	39.06	1	29.31	50	75
Irrigation & drainage	7	1,058.01	6	1,007.49	86	95
Livestock	1	30.42	1	30.42	100	100
Perennial crops	3	283.38	1	79.65	33	28
Research	1	35.57	1	35.57	100	100
Education	10	1,043.68	7	727.22	70	70
Higher education	4	589.23	4	589.23	100	100
Other education	1	63.65				
Secondary education	1	142.95				
Vocational / teacher training	4	247.85	3	137.99	75	56
Electric power & other energy	6	1,637.55	6	1,637.55	100	100
Distribution & transmission	4	1,009.88	4	1,009.88	100	100
Other power & energy conversion	1	272.53	1	272.53	100	100
Thermal	1	355.14	1	355.14	100	100
Finance	5	723.45	5	723.45	100	100
Financial sector development	2	373.98	2	373.98	100	100
Other finance	3	349.47	3	349.47	100	100
Industry	3	337.17	2	317.01	67	94
Fertilizer & other chemicals	1	217.64	1	217.64	100	100
Other industry	1	20.16				
Small-scale enterprise	1	99.37	1	99.37	100	100
Oil & gas	1	37.35	1	37.35	100	100
Refining, storage & distribution	1	37.35	1	37.35	100	100
Population, health & nutrition	5	271.26	5	271.26	100	100
Basic health	2	91.44	2	91.44	100	100
Targeted health	3	179.82	3	179.82	100	100
Public sector management	2	144.21	1	119.8	50	83
Institutional development	2	144.21	1	119.8	50	83
Telecommunications	1	310.41	1	310.41	100	100
Telecommunications & information	1	310.41	1	310.41	100	100
Transportation	7	1,083.01	7	1,083.01	100	100
Highways	2	549.54	2	549.54	100	100
Ports & waterways	1	96.49	1	96.49	100	100
Railways	1	29.83	1	29.83	100	100
Rural roads	1	189.67	1	189.67	100	100
Urban transport	2	217.48	2	217.48	100	100
Urban development	2	409.05	2	409.05	100	100
Urban development adjustment	1	175.17	1	175.17	100	100
Urban housing	1	233.88	1	233.88	100	100
Water supply & sanitation	3	330.7	2	281.4	67	85
Urban water supply	3	330.7	2	281.4	67	85
Grand total	66	8,111.16	52	7,161.48	79	88

Table C.4.3. Borrower Performance Ratings for OED Evaluated Projects, 1992–98 (cont'd)

Implementation satisfactory				Compliance satisfactory			
No. of projects	Commitments FY96 (US\$M)	No. of projects (%)	Commitments (%)	No. of projects	Commitments FY96 (US\$M)	No. of projects (%)	Commitments (%)
16	1,346.54	76	76	14	1,155.8	67	65
1	13.25	100	100	1	13.25	100	100
1	59.67	100	100				
3	166.48	100	100	3	166.48	100	100
1	79.1	100	100	1	79.1	100	100
1	18.38	100	100	1	18.38	100	100
				1	29.31	50	75
6	864.02	86	82	5	783.29	71	74
1	30.42	100	100	1	30.42	100	100
1	79.65	33	28				
1	35.57	100	100	1	35.57	100	100
8	837.08	80	80	9	900.73	90	86
4	589.23	100	100	4	589.23	100	100
				1	63.65	100	100
4	247.85	100	100	4	247.85	100	100
6	1,637.55	100	100	6	1,637.55	100	100
4	1,009.88	100	100	4	1,009.88	100	100
1	272.53	100	100	1	272.53	100	100
1	355.14	100	100	1	355.14	100	100
4	476.05	80	66	4	476.05	80	66
1	126.58	50	34	1	126.58	50	34
3	349.47	100	100	3	349.47	100	100
2	237.8	67	71	2	237.8	67	71
1	217.64	100	100	1	217.64	100	100
1	20.16	100	100	1	20.16	100	100
1	37.35	100	100	1	37.35	100	100
1	37.35	100	100	1	37.35	100	100
4	224.61	80	83	5	271.26	100	100
1	44.79	50	49	2	91.44	100	100
3	179.82	100	100	3	179.82	100	100
2	144.21	100	100	2	144.21	100	100
2	144.21	100	100	2	144.21	100	100
1	310.41	100	100	1	310.41	100	100
1	310.41	100	100	1	310.41	100	100
5	684.13	71	63	6	986.52	86	91
1	340.33	50	62	2	549.54	100	100
1	96.49	100	100				
1	29.83	100	100	1	29.83	100	100
				1	189.67	100	100
2	217.48	100	100	2	217.48	100	100
2	409.05	100	100	2	409.05	100	100
1	175.17	100	100	1	175.17	100	100
1	233.88	100	100	1	233.88	100	100
2	229.44	67	69	3	330.7	100	100
2	229.44	67	69	3	330.7	100	100
53	6,574.22	80	81	55	6,897.43	83	85

Table C.5. Quality Assurance Group Projects at Risk Ratings for All Active Projects in Indonesia, June 1999

Sector/subsector	Active projects		At risk			
	No. of projects	Net commitments (US\$M)	No. of projects	Net commitments (US\$M)	No. of projects (%)	Commitments (%)
Agriculture	12	785	4	131	33	17
Agriculture adjustment	1	300				
Annual crops	1	22	1	22	100	100
Irrigation & drainage	3	230	2	86	67	37
Other agriculture	5	106	1	23	20	22
Perennial crops	1	78				
Research	1	49				
Education	15	980				
Education adjustment	6	378				
Higher education	1	48				
Other education	2	162				
Primary education	1	33				
Secondary education	4	337				
Vocational education, training	1	22				
Electric power & energy	6	1,279	6	1,279	100	100
Distribution & transmission	2	651	2	651	100	100
Hydro	1	78	1	78	100	100
Power, energy adjustment	1	18	1	18	100	100
Thermal	2	532	2	532	100	100
Environment	4	134	1	16	25	12
Natural resource management	4	134	1	16	25	12
Finance	2	36	1	20	50	56
Financial adjustment	1	16				
Other finance	1	20	1	20	100	100
Industry	1	41				
Other industry	1	41				
Multisector	1	500				
Economic management	1	500				
Population, health & nutrition	7	275	2	73	29	27
Basic health	4	166	1	68	25	41
Targeted health	3	109	1	5	33	5
Public sector management	3	285				
Decentralization	1	225				
Privatization	1	32				
Public sector management adjustment	1	28				
Social protection, etc.	1	600				
Social sector adjustment	1	600				
Telecommunications	3	626				
Telecomm, informatics	3	626				
Transportation	7	1,073	2	182	29	17
Highways	2	494				
Railways	2	182	2	182	100	100
Rural roads	3	397				
Urban development	9	921	2	258	22	28
Urban development adjustment	4	313	1	113	25	36
Urban environment	1	55				
Urban management	4	553	1	145	25	26
Water supply & sanitation	1	69	1	69	100	100
Rural water supply/sanitation	1	69	1	69	100	100
Grand total	72	7,604	19	2,028	26	27

Table C.5. Quality Assurance Group Projects at Risk Ratings for All Active Projects in Indonesia, June 1999 (cont'd)

Potentially at risk				Not at risk			
No. of projects	Net commitments (US\$M)	No. of projects (%)	Commitments (%)	No. of projects	Net commitments (US\$M)	No. of projects (%)	Commitments (%)
				8	654	67	83
				1	300	100	100
				1	144	33	63
				4	83	80	78
				1	78	100	100
				1	49	100	100
				15	980	100	100
				6	378	100	100
				1	48	100	100
				2	162	100	100
				1	33	100	100
				4	337	100	100
				1	22	100	100
				3	118	75	88
				3	118	75	88
1	16	50	44				
1	16	100	100				
				1	41	100	100
				1	41	100	100
				1	500	100	100
				1	500	100	100
				5	202	71	73
				3	98	75	59
				2	104	67	95
1	28	33	10	2	257	67	90
				1	225	100	100
				1	32	100	100
1	28	100	100				
				1	600	100	100
				1	600	100	100
				3	626	100	100
				3	626	100	100
				5	891	71	83
				2	494	100	100
				3	397	100	100
				7	663	78	72
				3	200	75	64
				1	55	100	100
				3	408	75	74
2	44	3	1	51	5,532	71	73

Table C.6. Quality Assurance Group Risk Rating Flags by Sector for Indonesia

Sector	No. of projects	Effective-ness delays	Compliance with legal covenants	Management performance	Counter-part funds	Procurement progress	Financial performance	Enviro/resettle-ment problems	Slow disburse-ments	History of problems	Risky country	Risky subsector	Economic manage-ment	Golden Rule
Agriculture	12	0	0	3	2	2	2	0	2	1	0	0	12	0
Education	15	0	1	0	0	1	0	0	3	0	0	0	15	0
Electric pwr & engy	6	0	3	0	1	0	5	0	0	0	0	2	6	0
Environment	4	0	0	1	0	0	0	0	0	1	0	0	4	0
Finance	2	0	0	1	1	0	0	0	1	0	0	1	2	0
Industry	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Multisector	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Populn, hith & nutr	7	0	0	2	1	2	0	0	1	0	0	0	7	0
Public sector mgmt	3	0	0	0	0	0	0	0	0	1	0	1	3	0
Soc. protection, etc.	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Telecommunications	3	0	0	0	0	0	0	0	1	0	0	0	3	0
Transportation	7	0	1	0	2	0	0	0	3	0	0	0	7	0
Urban development	9	0	0	2	2	0	1	0	0	2	0	8	9	0
Water supply & sanitn	1	0	0	1	1	1	1	0	0	0	0	0	1	0
Total number of flags	72	0	5	10	10	6	9	0	11	5	0	12	72	0

Table C.7. World Bank Forest Project Lending by Country, 1984–99

Region/ country	1984–91				1992–99				1984–91—1992–99	
	No. of projects	Commit- ments (US\$M)	No. of projects (%)	Commit- ments (%)	No. of projects	Commit- ments (US\$M)	No. of projects (%)	Commit- ments (%)	Change in commit- ments (US\$M)	Change in commit- ments (%)
AFR	17	425.8	41.5	25.3	3	53.2	8.8	3.1	-372.6	-88
Benin	1	5.4	2.4	0.3					-5.4	-100
Burundi	1	12.8	2.4	0.8					-12.8	-100
C.A.R.	1	19	2.4	1.1					-19	-100
Côte d'Ivoire	2	111.3	4.9	6.6					-111.3	-100
Ethiopia	1	45	2.4	2.7					-45	-100
Gabon					1	22.5	2.9	1.3	22.5	
Ghana	1	39.4	2.4	2.3					-39.4	-100
Guinea	1	8	2.4	0.5					-8	-100
Kenya	1	19.9	2.4	1.2					-19.9	-100
Madagascar	1	7	2.4	0.4					-7	-100
Malawi	1	16.7	2.4	1.0					-16.7	-100
Mali	1	6.3	2.4	0.4					-6.3	-100
Nigeria	1	71	2.4	4.2					-71	-100
Rwanda	1	14.1	2.4	0.8					-14.1	-100
Tanzania					1	18.3	2.9	1.1	18.3	
Uganda	1	13	2.4	0.8	1	12.4	2.9	0.7	-0.6	-5
Zambia	1	22.4	2.4	1.3					-22.4	-100
Zimbabwe	1	14.5	2.4	0.9					-14.5	-100
EAP	9	722.7	22.0	43.0	6	577.9	17.6	33.6	-144.8	-20
Cambodia					1	5	2.9	0.3	5	
China	3	404.2	7.3	24.0	3	550	8.8	31.9	145.8	36
Indonesia	2	54	4.9	3.2					-54	-100
Lao, P.D.R.					1	8.7	2.9	0.5	8.7	
Malaysia	2	15.5	4.9	0.9					-15.5	-100
Myanmar	1	25	2.4	1.5					-25	-100
Papua New G.					1	14.2	2.9	0.8	14.2	
Philippines	1	224	2.4	13.3					-224	-100
ECA	1	35	2.4	2.1	5	244.9	14.7	14.2	209.9	600
Albania					1	8	2.9	0.5	8	
Belarus					1	41.9	2.9	2.4	41.9	
Bos.-Herz.					1	7	2.9	0.4	7	
Croatia					1	42	2.9	2.4	42	
Poland					1	146	2.9	8.5	146	
Yugoslavia	1	35	2.4	2.1					-35	-100
LAC	3	102.8	7.3	6.1	5	85.6	14.7	5.0	-17.2	-17
Argentina					2	35.5	5.9	2.1	35.5	
Brazil	1	48.5	2.4	2.9					-48.5	-100
Guyana	1	8.8	2.4	0.5					-8.8	-100
Haiti					1	26.1	2.9	1.5	26.1	
Mexico	1	45.5	2.4	2.7	1	15	2.9	0.9	-30.5	-67
Nicaragua					1	9	2.9	0.5	9	
MENA	2	69	4.9	4.1	4	220.5	11.8	12.8	151.5	220
Algeria					1	25	2.9	1.5	25	
Morocco	1	49	2.4	2.9	1	100	2.9	5.8	51	104
Tunisia	1	20	2.4	1.2	2	95.5	5.9	5.5	75.5	378
SAR	9	326.8	22.0	19.4	11	540.2	32.4	31.4	213.4	65
Bangladesh	1	28	2.4	1.7	1	49.6	2.9	2.9	21.6	77
Bhutan	2	6.6	4.9	0.4	1	5.4	2.9	0.3	-1.2	-18
India	3	223.8	7.3	13.3	8	460.3	23.5	26.7	236.5	106
Nepal	2	48.5	4.9	2.9					-48.5	-100
Pakistan					1	24.9	2.9	1.4	24.9	
Sri Lanka	1	19.9	2.4	1.2					-19.9	-100
Grand total	41	1,682.1	100.0	100.0	34	1,722.3	100.0	100.0	40.2	2

Table C.8. World Bank Investment Operations with Forest Components, 1984-99

Region/ country	1984-91					1992-99					
	No. of projects	Total commit- ments (US\$M)	Forest component commit- ments (US\$M)	No. of projects (%)	Total commit- ments (%)	No. of projects	Total commit- ments (US\$M)	Forest component commit- ments (US\$M)	No. of projects (%)	Total commit- ments (%)	
AFR	16	281.1	90.2	50.0	14.5	31.0	718.1	219.0	21.3	11.6	12.2
Benin							14.1	14.1	1.1	0.2	0.8
Burkina Faso	1	16.5	16.5	3.1	0.8	5.7					
Burundi	1	10.0	1.0	3.1	0.5	0.3					
C.A.R.	1	8.0	2.7	3.1	0.4	0.9					
Cameroon	1	21.5	0.5	3.1	1.1	0.2					
Chad							5.3	3.3	1.1	0.1	0.2
Comoros	1	5.0	0.9	3.1	0.3	0.3					
Eq. Guinea	1	6.0	5.9	3.1	0.3	2.0					
Ethiopia							200.0	3.4	1.1	3.2	0.2
Ghana	2	27.4					27.4	27.4	2.1	0.4	1.5
Guinea Bis.	1	3.7	0.7	3.1	0.2	0.2					
Kenya							60.5	34.7	1.1	1.0	1.9
Madagascar	1	26.0	26.0	3.1	1.3	8.9	76.0	13.8	2.1	1.2	0.8
Malawi	1	46.7	9.9	3.1	2.4	3.4	12.4	10.2	1.1	0.2	0.6
Mali	1	24.4	2.0	3.1	1.3	0.7	40.4	21.5	2.1	0.7	1.2
Mauritania							18.0	1.2	1.1	0.3	0.1
Mozambique	1	22.0	3.4	3.1	1.1	1.2	30.0	3.5	1.1	0.5	0.2
Niger	2	40.8	4.2	6.3	2.1	1.5					
Nigeria							67.5	5.7	2.1	1.1	0.3
Rwanda	1	11.5	2.1	3.1	0.6	0.7					
Senegal							52.2	4.2	2.1	0.8	0.2
Somalia	1	19.0	9.8	3.1	1.0	3.4					
Somalia	1	20.0	4.7	3.1	1.0	1.6					
Sudan							51.8	13.5	2.1	0.8	0.8
Uganda							62.5	62.5	1.1	1.0	3.5
Zimbabwe											
EAP	2	152.0	6.0	6.3	7.8	2.0	3,188.8	617.7	30.9	51.4	34.5
China	2	152.0	6.0	6.3	7.8	2.0	2,556.5	304.9	16.0	41.2	17.0
Indonesia							298.3	87.7	7.4	4.8	4.9
Lao, P.D.R.							20.7	0.4	1.1	0.3	0.0
Malaysia							70.0	70.9	1.1	1.1	4.0
Papua New G.							27.0	27.0	1.1	0.4	1.5
Vietnam							216.3	126.8	4.3	3.5	7.1

Table C.8. World Bank Investment Operations with Forest Components, 1984-99 (cont'd)

Region/ country	1984-91				1992-99						
	No. of projects	Total component commit- ments (US\$M)	Forest component commit- ments (%)	No. of projects	Total component commit- ments (US\$M)	Forest component commit- ments (%)	No. of projects	Total component commit- ments (US\$M)	Forest component commit- ments (%)		
ECA	2	220.0	9.6	6.3	11.3	3.3	7	282.4	73.8	7.4	4.5
Georgia								4.4	1.9	1.1	0.1
Latvia								29.0	9.2	2.1	0.5
Lithuania								7.0	0.5	1.1	0.1
Romania	1	180.0	0.6	3.1	9.3	0.2	1	110.0	15.4	1.1	1.8
Russia								132.0	46.9	2.1	2.1
Turkey	1	40.0	9.0	3.1	2.1	3.1	2				
Yugoslavia	1	40.0	9.0	3.1	2.1	3.1	2				
LAC	5	360.0	151.1	15.6	18.5	51.9	24	1,351.0	547.5	25.5	21.8
Bolivia								47.7	28.1	3.2	0.8
Brazil	2	180.0	125.3	6.3	9.3	43.1	4	442.0	231.2	4.3	7.1
Chile	1	75.0	22.2	3.1	3.9	7.6	2	26.5	2.9	2.1	0.4
Colombia								39.0	39.0	1.1	0.6
Dominican Rep.								3.0	1.2	1.1	0.0
Ecuador								40.0	4.8	2.1	0.6
Haiti								21.5	21.5	1.1	0.3
Honduras								104.8	104.8	3.2	1.7
Mexico								418.0	35.0	2.1	6.7
Nicaragua								30.0	2.2	1.1	0.5
Panama								22.5	6.7	1.1	0.4
Paraguay								50.0	8.0	1.1	0.8
Peru	1	40.0	2.8	3.1	2.1	1.0	1	51.0	7.1	1.1	0.8
Uruguay	1	65.0	0.8	3.1	3.3	0.3	1				
Venezuela								55.0	54.9	1.1	0.9
MENA								346.3	113.0	7.4	5.6
Algeria								89.0	89.0	1.1	1.4
Egypt								22.0	7.3	1.1	0.4
Morocco								175.0	7.1	3.2	2.8
Tunisia								27.5	4.8	1.1	0.4
Yemen								32.8	4.8	1.1	0.5
SAR	7	931.4	34.1	21.9	47.9	11.7	7	322.4	218.9	7.4	5.2
Bangladesh	1	24.5	4.6	3.1	1.3	1.6	1	53.0	3.1	1.1	0.9
Bhutan	1	9.0	1.4	3.1	0.5	0.5	1				
India	3	857.8	16.9	9.4	44.1	5.8	3	196.7	179.0	3.2	3.2
Nepal	1	19.1	2.6	3.1	1.0	0.9	1				
Pakistan	1	21.0	8.6	3.1	1.1	3.0	3	72.7	36.8	3.2	1.2

D. Ownership and Reforms

The need for borrower ownership has long been an article of faith within the Bank. Several studies by OED and the Development Economics Vice Presidency have concluded that satisfactory adjustment programs are associated with high borrower ownership (Johnson and Wasty 1993 and Dollar and Svenson 1998). An explanation of success in projects and sectoral performance as well as borrower commitment has been an important thoroughfare, not just in OED's numerous audits and sector reviews and studies of development effectiveness, but also in other research conducted on Bank and donor effectiveness. The message is reinforced by the Bank's Quality Assessment Group.³⁴ But a recent note from the Development Economics Vice Presidency admits that the issue of borrower commitment has often been ignored in the Bank because assessing borrower ownership can be difficult and time consuming.³⁵ The note summarizes best practices and provides two conceptual frameworks typically used in the Bank to assess the level and quality of ownership. After discussing the pros and cons of the first two, the note offers a third, improved one. The first focuses on the analysis of leadership by senior policymakers, and the second, based on interest group analysis, focuses on stakeholder analysis. The leadership analysis focuses on:

- The locus of initiative in formulating and implementing reforms
- The level of intellectual conviction among key policymakers
- The expression of political will by top leaders
- Efforts to build consensus among constituencies.

Only the last refers to stakeholders outside the policy. Besides, its emphasis is on the effort to build consensus, not on results.

Whereas leadership is documented extensively to have made a difference, the review of good practice concludes that it is a mistake to rely solely on indicators of political leadership since implementation needs support from a lot of other actors, particularly in democratic systems. Most important changes require sustained institutional effort to implement reform. They also need a successful rearguard action at levels beyond the awareness and control of senior policymakers. Policymakers come and go, whereas reforms need to continue.

For this reason, the note asserts that stakeholder analysis has received strong support in the Bank, including understanding the interests of the stakeholders and how to involve and influence them. However, the best practice note argues that stakeholder analysis often ignores the different capacities and organizational abilities of different

stakeholders. Second, some stakeholders will be better off only in the long run as a result of reforms. There are short-term costs, and uncertainties about long-term benefits. The report argues that the nature of change may be so far beyond the realm of a society's experience that no social consensus can be reached about the right course. For this reason, the note recommends reform readiness analysis based on a use of a questionnaire. The basic elements of the reform readiness analysis include the following elements:

- Political desirability: The benefits to leadership and their constituencies must outweigh the costs.
- Political feasibility: Leaders must be able to enact reforms and overcome political opposition.
- Political sustainability: The desirability and feasibility of the reforms must be maintained over time and the opportunity for reversal must be overcome.

If even one of these conditions does not exist, argues the best practice note, the country is not ready for reforms. Lack of readiness, however, does not mean inaction. It should lead to recommendations or actions to help build a basis for reforms in a variety of ways. For example, analytical work can reduce uncertainty and the costs and benefits of the reforms. The Bank can actively disseminate its analytical work. It can also develop packages of reforms that command broader ownership. It can help in sequencing and phasing of reforms, which builds broader support. Finally, it can do parallel work to build institutional support for reforms.

The implementation of the 1991 forest strategy in Indonesia requires all these approaches. Yet the question remains about the government's reform readiness as distinct from the economic crisis providing the Bank some leverage it did not have before. The crisis offers opportunities, but the history of the Bank-Indonesia interactions in the forest sector forewarns about the challenges.

E. Post-1991 Forest Component Projects

Project Objectives

Common themes of the five projects in this category (including the Watershed Conservation Project discussed above) were poverty alleviation and resource management, sustainable development, institutional development, participation and environmental protection, and mitigating degradation. Most of these projects had tree crop development components that directly influenced the forest sector. The salient features of these projects are discussed below in a chronological order.

Tree Crop Smallholders Project (1992)

- Project cost at appraisal: US\$154.5 million
- Bank funding: US\$87.6 million
- Forest-related component: 16%
- ERR estimate at appraisal: 13%

The project objectives were: (1) increase incomes of poor farm families; (2) lower support costs to facilitate a more rapid and spontaneous expansion of planting; and (3) develop sustainable financing procedures for smallholders' tree crop program and strengthen supervision of small holders' program activities. The project supported planting rubber and coconut trees and maintaining those planted under previous programs. The unused lands were proposed to be cleared for planting rubber trees. The primary forests and biodiversity were not expected to be affected by the tree-planting program of the project.

The beneficiaries would be 62,000 farm families who would plant rubber trees on 65,000 ha; 31,000 farm families planting coconut on 35,000 ha of land; 7,000 farm families planting rubber trees and coconut on 7,000 ha on a self-help planting basis; and 61,000 farm families maintaining existing rubber and coconut plantations on 74,000 ha. The recent PSRs indicate full achievement of the tree crop component. The main issues are (1) the weak institutional arrangement for smallholder financing and (2) poor credit recovery.

The EIA included land preparation techniques, and mitigation measures were provided for disturbed slopes that would be susceptible to erosion. Monitoring and evaluation arrangements were built in for this purpose. Resettlement and indigenous people were not involved.

Integrated Swamp Development Project (1994)

- Project cost at appraisal: US\$106 million
- Bank funding: US\$65 million

- Forest related component: 20%
- ERR estimate at appraisal: 15%

The project aimed at alleviating poverty in selected swamp schemes through better management and sound environmental practices. The components included: (1) rehabilitation and construction of water control structures; (2) promotion of fruit crop production through support for research and extension and provision of seeds, pest control, etc.; and (3) tree crop development (mainly planting hybrid coconut). DGPHA of the Ministry of Forests was directly involved in the project by implementing the coastal land use management component. The project design provides that existing forestlands would not be directly affected by the tree crop development under this project. However, as in other agricultural development projects in remote areas, a possible tendency for the scheme dwellers to use surrounding forests to collect fuel wood has been identified in the project design. To address this issue, it was suggested to establish on-farm wood lots for which field trials of firewood species on the abandoned lands were to be established.

Under the EIA, an environment monitoring and management plan was prepared for which M&E was proposed through annual implementation reviews.

The project beneficiaries would be about 8,000 smallholders who would grow 12,500 ha of hybrid coconut under the tree crop component. The overall project implementation has been poor and some restructuring has been done. Weak project management has been stated as one of the reasons for the poor showing. However, the tree crop component has been rated satisfactory.

Nusa Tenggara Agriculture Area Development Project (1996)

- Project cost at appraisal: US\$41 million
- Bank funding: US\$27 million
- Forest related component: 20%
- ERR estimate at appraisal: 17%

The project objectives were: (1) raise smallholders' incomes; (2) strengthen local level institutions; and (3) foster broad-based participation. The components included: (1) research to develop technological packages appropriate to the agro-ecological systems; (2) linkages between various institutions; and (3) transfer of technical packages to area farmers. The forest-related component is tree crop development under dryland cropping (cashew, cocoa, and coffee) and in-house plots (mango, jackfruit).

The EIA concluded that the project would not have any impact on the rain forests. The possible impact on soil and land was seen to be minimalized, and mitigation measures (*minimum topsoil disturbance, contour planting and other conservation farming methods*) were proposed. The tree crop development under improved dryland farming systems technology would benefit about 16,800 farm families on 12,600 ha. The analysis of dryland farming (tree crop production and incremental incomes) was done as part of M&E.

Due to poor implementation progress, the project has been restructured. Weak project management and a shortage of counterpart funds have been the issues. In agreeing to the restructuring of the project, the Bank has warned that in case of continued poor progress, the project might be cancelled.

Sulawesi Agriculture Area Development Project (1996)

- Project cost at appraisal: US\$42.6 million
- Bank funding: US\$26.8 million
- Forest related component: <1%
- ERR estimate at appraisal: 21%

The relevant objectives of the project were (i) determining environmentally sustainable farming practices; and (ii) fostering beneficiary participation in planning and implementation. The project components were agriculture-based area development, including tree crop (cashew and cocoa) rehabilitation. The key benefits were assumed to be a reduction in areas under slash and burn agriculture and an increase in areas under erosion control measures.

The EIA covered social and cultural environment and impact on women. It covered the impact of roads and dryland farming system development. M&E was based on indicators for environmentally sustainable upland farming practices, improvement in the capacity of local institutions, and an increase in farm productivity and incomes.

The project benefits from the tree crop component would be the rehabilitation of cocoa and cashew on about 228,000 ha through better cultural practices. The project implementation has been poor on several accounts including poor management, lack of counterpart funding, non-compliance of financial covenants, and this project has also been recently restructured. The project is under observation and may be cancelled if implementation does not improve.

Maluku Regional Development Project (1998)

- Project cost at appraisal: US\$20.5 million
- Bank funding: US\$16.3 million
- Forest-related component
- Tree crop development: 20%
- ERR estimate at appraisal (overall): 34.5%
- Related to tree crop: 23.2%

The project aims to alleviate poverty in rural and wasteland areas through investment in tree crops; credit for income generating activities; provision of small-scale infrastructure; and overcoming transportation and marketing constraints. The main component is the Tree Crop Development and Rehabilitation (coconut and coffee with food crops). The Bank contribution is expected to add value through the Bank's operational experience in Indonesia and its knowledge of agriculture-based regional development institutions and technologies.

The tree crop component of the project is expected to benefit about 15,000 farmers on about 7,500 ha. The project is in the early stages of implementation. However, the tree crop component appears to be moving on schedule.

The project is believed to involve no resettlement and is expected to have no major detrimental impact on the environment. The sustainability aspects—particularly the tree crop development—have been analyzed and efforts made to cover the anticipated risks. No clearing of primary or secondary forests would be allowed under the project and all land development would be in areas classified for agricultural production or conversion of degraded forests. This would require proper monitoring and vigilance. However, absence of the forestry establishment in the project's implementation or monitoring responsibilities is surprising.

F. Summary of April 2000 Bogor Workshop

On April 25, 2000, a workshop entitled “Finding Common Ground: A Multi-Stakeholder Dialogue on Critical Issues Facing Indonesia’s Forestry,” was held at the Center for International Forestry Research (CIFOR) in Bogor, Indonesia. The workshop was organized by CIFOR and the U.K. Department for International Development (DFID), in collaboration with the World Bank’s resident mission and Operations Evaluation Department. In the first of two sessions of the workshop, the Indonesia country case study—*The Challenges of World Bank Involvement in Forests: An Evaluation of Indonesia’s Forests and World Bank Assistance*—was discussed. The second session focussed on furthering the dialogue among all parties concerned on the critical issues facing Indonesia’s forests.

Approximately 100 individuals participated in the workshop, representing a wide range of stakeholders, including MOFEC (current and former officials, representing all relevant departments and agencies), other concerned government ministries (finance, environment, planning, external affairs, etc.) academics, a large cross section of civil society including representatives of indigenous peoples and other NGOs, donors, the private sector, and domestic and international analysts of forest policy. The workshop was opened by Mr. Jeffrey Sayer, Director-General of CIFOR. A brief presentation of the main findings by OED was followed by responses to the OED report from MOFEC and NGOs (presented by INFID—the International NGO Forum for Indonesian Development).

In general, there was no disagreement or challenges to the OED report’s findings, and many commentators endorsed the quality of the analysis and the breadth of coverage of the issues facing Indonesia’s forests. Besides clarification of the coverage of some of the issues in the OED evaluation, and the process by which the OED evaluation was conducted, most of the comments were targeted at the current forest policymaking processes in the country, the World Bank’s approach to policy recommendations, and its consultative process in addressing key outstanding issues. One issue of omission from the OED report which was identified was the report’s coverage of human rights as they pertain to the forest-dependent and indigenous peoples. While OED noted that the fundamental issues of human rights are addressed indirectly, through the issues of *adat* rights and access to forest resources, including land titles, the broader issues of human rights were beyond the scope of the present study and were not included the study’s terms of reference.

The response of MOFEC to the report and other comments from the floor was open and forward-looking. MOFEC officials appreciated the report's forthright discussion of the issues, including its appreciation of the role of factors beyond the ministry's control. MOFEC was also forthright in accepting the fallacy of past attempts to become the world's top producer of plywood, noting it to be a misguided policy. This public acceptance is significant in being a fundamentally different position than what MOFEC has adopted in the past. MOFEC officials also noted the important role of governance and law enforcement in forest management, and that it was committed to address this and other reform issues.

Overall, the workshop was successful in forwarding the agenda of a better dialogue among all the key stakeholders. There was a better appreciation of the different points of view and the need for a concerted effort for change. There was a consensus on the need for a broader and more participatory consultative process to address the main issues facing Indonesia's forests, and to seek ways to make a transition to a new economy that is not as dependent on timber exports. This is the area that the World Bank now needs to focus on, in addition to adopting a more effective multisectoral approach to its non-forest-sector operations.



Endnotes

Chapter 1

1. As discussed later, before 1998, the Ministry of Forestry had oversight of the forest sector. In 1998, the ministry was restructured and renamed the Ministry of Forestry and Estate Crops (MOFEC). Henceforth, this review refers to the ministry as MOFEC.

2. In comparative studies of the “Dutch Disease” following the oil price boom, Indonesia was often cited as one of the few oil exporting countries that handled its oil revenues wisely (Gelb and Associates 1988). It pursued an outward-oriented strategy and invested oil revenues in employment-oriented agricultural and rural development, including irrigation, agricultural research, and extension. This diversification of the economy from oil to other sectors was achieved without an overvalued exchange rate or the loss of export competitiveness that hurt many oil exporters.

3. Personal communication with David Heesen of USAID mission in Indonesia. He and others argue that the major source of deforestation of the tropical rainforests in South and Southeast Asia during the post-war reconstruction and modernization of Japan has been the huge investments in building construction and infrastructure investment. Investment in changing Japanese architectural specifications—the so-called JAS specs, which have until now essentially precluded the use of softwoods and other substitutable products and have been modified only slightly recently—would be a far better investment of donor resources. They compare the situation to controlling production of drugs in Latin America, spurred as it is—they argue—by the demand in industrial countries, which tends not to be addressed as the root cause of the problem, posing an attractive export option to a poor country.

4. The politics were dominated by Suharto, his family, and friends, with a “dual” role for the military. Generals occupied important positions in the government at the political and administrative level, including the presidency, many cabinet posts, and a majority of the governorships and municipality leadership positions. What opposition existed was tightly controlled by the New Order State.

5. Cambodia and Papua New Guinea.

Chapter 2

6. The section below draws extensively on Kartodihardjo 1999b, and Hyde et al. 1999.

7. Data in this section come mostly from the MOFEC or Biro Pusat Statistic (BPS), but occasionally from other government agencies or industry associations. The data are not always consistent from one source to another. For example, 143 million, rather than 147 million forest hectares, is a commonly quoted number, even with the MOFEC. The data, and interpretations of the data, preferred by the MOFEC, the World Bank, or various other observers of Indonesian forestry can be very different. Nevertheless, the magnitudes and ordered rankings of the MOFEC data are consistent with other observations. They are sufficient for us to impart reliable descriptions of the relative importance of the various components of forestry and the forest products industries.

8. Forests are classified into five types: *conservation forests* are designated for conservation, including wildlife, national parks, and tourism; *protection forests* are primarily for watershed protection; *production forests* are designated for timber harvesting, with selective harvest practices allowing for trees down to 50 cm in dbh; *limited production forests* are those in which harvests are restricted to protect important environmental considerations—usually associated with erosion—to be achieved by limiting logging practices to selective harvests of trees greater than 60 cm in dbh; and *convertible production forests* have been designated for conversion to non-forestry purposes such as estate crops, transmigrant smallholdings, or other future agricultural uses.

9. For example, for South Sumatra, the 1984 forest inventory contained three times the area identified as forest on colonial Dutch maps. Most of the difference between the older Dutch maps and the Sumatra inventory was land that had been settled by small farmers before 1984.

10. State-owned forest area is defined as forest areas legally owned by the state. As noted, this area is not always covered by a forest, which means that a change in the legal forest area may not be indicative of a corresponding change in the actual forested area. In 1984, the state-owned forest area was

determined on the basis of TGHK, while in 1997 it changed as a result of integration of TGHK and RTRWP.

11. The official definition is land capable of growing 20 cubic meters of wood per hectare or land with standing trees greater than 50 cm in diameter at breast height (dbh).

12. This estimate is based on recent research using MOFEC data. Some private sector observers, including APKINDO, have questioned this estimate. It should be noted that this estimate includes forest area which has been classified for conversion purposes under the TGHK. Given the area of remaining convertible forest, this rate is clearly unsustainable.

13. This section of the paper draws from Biodiversity: Action Plan for Indonesia (Ministry of National Development Planning 1993).

Chapter 3

14. Parts of this chapter are based on Hyde et al. 1999.

15. Three *Perum Inhutani* that are largely teak plantations are on Java, and one in E. Nusa is a sandalwood plantation.

16. This point must be noted because external observers often assume, incorrectly, that the agreement ties harvests to the mill officially identified with each concession. In fact, Indonesian concessions act just like North American firms with integrated operations. They often send timber to competing mills if the competing mill will match their reservation price for either stumpage or logs. Mills in vertically integrated operations may purchase more than 10 percent of their logs on the open market. One large group of mills, the Barito Pacific Group, purchases more than 40 percent of its logs on the market (Barr 1999a). It would be useful to inquire more closely of the patterns and sources of log flows.

17. Two important laws were Law 10 of 1992 concerning Population Development and Family Welfare Law and the 1992 law concerning Spatial Use Management Law (Sève 1999; World Bank 1993).

18. Ministry of Forestry Decree No. 251 Kpts-II/93 and Joint Decree of Ministers of Agriculture, Home Affairs, and Transmigration and Forest Dwellers No. 480 Kpts-II/93.

Chapter 4

19. Parts of this chapter are based on Hyde et al. 1999.

20. One observer goes so far as to assert that illegal logging is the source of all consumption for domestic use. Illegal logging is common in all the countries studied for this review, including two countries with strong political will to preserve forests, China and India. China also has a strong enforcement system.

21. By June 1998, 69.4 million ha of forest areas had been allocated to 651 HPH. Of these, 34 million ha are still under the first-term management by 291 HPH. Of the concessions whose first term has expired and not been renewed, 14 percent will be rehabilitated, 6 percent will be reserved for other as yet undetermined uses, 4 percent will be managed by HPH in partnership with state owned enterprises (*Bumn Kehutanan*) and the private sector, and the remaining 5 percent will be changed to different functions, such as tree plantations and transmigration. The largest-ever land conversion took place in the peat forest of Central Kalimantan, converting to agriculture an area of 1 million ha that had previously been managed by an HPH.

22. Among tree crops, rubber, coffee, and coconut are primarily small-holder crops. The majority (66 percent) of oil palm production is in the hands of large-scale commercial plantations, which have been growing rapidly in recent years. The total area of oil palm plantations (2.5 million ha) is smaller than that under rubber (about 3.5 million ha). However, the growth rate of the former between 1986 and 1997 has been 14 percent, while the latter has grown at about 2 percent per year (table A.5, Annex A).

23. Of the 4.1 million ha allocated to estate crops (i.e., covering all estate crops in addition to oil palm) since 1982, 3.3 million ha was in conversion areas and the rest in production forest areas.

24. Tempting as it may be, we should resist concluding that the policy changes should be put on hold until after the governance issues are resolved. While appropriate sequencing is necessary, the basic policy distortions should not be ignored, as they are likely to provide a strong incentive to resist institutional change.

Chapter 5

25. Based on the ESSD classifications, no component projects were identified, although about seven were picked up during this case study. However, no information is available on their performance or outcomes.

26. The government attributed part of the delay in project implementation, as in FICP I, to the delay in the appointment of a replacement of the original task manager.

27. The 1994 Strategy Review for the rural sector in Eastern Islands contains virtually no discussion of impact of forest-related issues. The 1992 agricultural sector work report identifies deforestation as a major concern in the siting and management of tree crop development in the outer islands, but also does not discuss the impact of agricultural policies on forests.

28. The 1995 report discusses the economics of long-term management of natural forests, and includes some references on results to alternative land uses. However, the results cannot be generalized and the assumption of an 11 percent discount rate may not be valid.

29. Punitive export taxes were to be phased out for a wide range of products given the pressing need for inflows of foreign exchange. However, the Memorandum of Economic and Financial Policies (from GOI to IMF, January 1998) notes that export taxes on certain products cannot be simply eliminated since they are an important means of “discouraging overexploitation of Indonesia’s natural environment. In such cases, export taxes will be replaced by resource rent taxes, which would protect the environment, while eliminating the bias against the production for export rather than for domestic use.” These products included logs, sawn timber, rattan, and minerals.

30. Indonesia is the world’s lowest-cost producer of palm oil (Larson 1996).

31. It should be noted that the structural adjustment program was in response to a severe financial crisis. The financial crisis did part of the job of a conventional structural adjustment loan (i.e., currency devaluation). Thus, the pure impact of the devaluation, in terms of its impact on forests, is *not* attributable to the structural adjustment loans.

Chapter 6

32. It should be noted, however, that although certain forest sector objectives (environment benefits and fuelwood supply) are being met, the intent of the tree-crop components in agricultural projects was to promote agricultural growth.

33. In their comments to an earlier draft of this report, some private sector observers have identified some specific issues that ought to be addressed in the forest sector: clearly identified and allocated forest areas; well-defined roles and rights of all stakeholders, particularly local residents; effective implementation of the rules and regulations without discrimination; and an appropriate incentive structure to pursue improved forest management practices.

Annexes

34. China QAG review.

35. PREM notes, number 15, June 1999. The rest of the discussion on borrower commitment is drawn from this note.



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