INDONESIA Political and Administrative Boundaries

This report, *The State of the Forest: Indonesia*, is a product of Forest Watch Indonesia (FWI) and Global Forest Watch (GFW). FWI was initiated in late 1997 by some 20 nongovernmental organizations to play its role as a civil society component, which encourages acceleration of the democratization process in terms of forest resources allocation and management in Indonesia. GFW was launched in 1998 by the World Resources Institute (WRI) to work in alliance with nongovernmental organizations and local leaders from forested countries around the world.

Forest Watch Indonesia seeks to develop independent citizen capacity to gather, process and disseminate forest data, maps and policy-relevant information about what is happening to Indonesia's forests and forest-dependent peoples. FWI is an independent forest monitoring network made up of individuals and organizations that are committed to realizing sustainable forest management in Indonesia. The objective of FWI's programs is to build and develop data on forests and forest issues, and to promote information transparency in Indonesia by strengthening alternative data and information provision.

Global Forest Watch seeks to make information available rapidly to an ever wider audience by providing forest information and maps on-line and developing a Website (www.globalforestwatch.org) to post results from its multiple field and cooperative activities in Cameroon, Canada, Chile, Gabon, Indonesia, Russia, and Venezuela. Reports, maps and information from credible sources will be available for downloading. Anyone with access to the Internet can consult GFW data and contribute by providing information or views directly on-line. We hope that the array of products and activities will lead to a more constructive dialogue between forest managers and users at the local, national, and international levels.

The State of the Forest: Indonesia

FWI

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GLOBAL FOREST WATCH

Linking forests & people

The State of the Forest: Indonesia

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CONTENTS

Acknowledgments vii
Foreword ix
Key Findings xi

1. Indonesia's Forests: What is at Stake? 1
1.1. 100 Million Hectares of Tropical Forest 1
1.2 A Rich Natural World Is Disappearing 1
1.3 People Also Depend on the Forests 3
1.4 Timber Products Are a Major Source of National Revenue 4
1.5 Assessing the State of the Forest 4
1.6 Structure of the Report 6

2. Forest Cover, Change, and Condition 7
2.1 Forest Cover and Change 7
2.2 Forest Condition Today 15

3. Deforestation and Forest Degradation 23
3.1 The Dynamics of Deforestation: An Overview 23
3.2 Timber Extraction: Logging Concessions (HPHs) 24
3.3 Timber Extraction: Illegal Logging 30
3.4 Industrial Timber Plantations (HTIs) 36
3.5 Oil Palm and Other Large-scale Industrial Estate Crops 42
3.6 Small-scale Farming 47

4. Forest and Land Fires 53
4.1 From Normal to Abnormal Fires 53
4.2 The Fires of 1982-1983 and 1994 53
4.3 The Fires of 1997-1998 54
4.4 Government Response to Forest and Land Fires 57

5. The Prospects for Forest Policy Reform 59
5.1 The Forest Policy Context: A Country in Crisis 59
5.2 Political Paralysis at the Center 60
5.3 Separatism and Demands for Decentralization in the Provinces 60
5.4 Spreading Civil Violence and the Breakdown of Law and Order 61
5.5 Conflicts over Forest Lands and Resources 61
5.6 The Agenda and Prospects for Policy Reform 66

Notes 68
Glossary 72
References 74

Annex 1: Guest Commentaries on Data Difficulties 77
Annex 2: Tables 81
Annex 3: Data Sources and Technical Notes 85

Figures

1.1 Biotic Richness: Percent of World's Species Found in Indonesia ... 1
2.1 Deforestation from the Preagricultural Era to 1997 ... 9
2.2 Changes in Forest Cover in Sumatra, 1900–2010 ... 14
2.3 Changes in Forest Cover in Kalimantan, 1900–2010 ... 14
2.4 Changes in Forest Cover in Sulawesi, 1900–2100 ... 14
2.5 Allocated Forest Function and Actual Forest Cover, 1997 ... 16
3.1 Processes of Forest Degradation and Deforestation in Indonesia ... 25
3.2 Production and Export of Logs, 1961–1999 ... 26
3.3 Production and Export of Plywood, 1961–1999 ... 26
3.4 Concession Area in Major Provinces, 1985–1998 ... 27
3.5 Industrial Roundwood Production, 1980–2000 ... 32
3.6 Installed Capacity in the Wood Processing Industries, 1999 ... 33
3.7 Installed Capacity and Production in the Pulp Industry, 1990–2001 ... 40
3.8 Installed Capacity and Production in the Paper & Paperboard Industry, 1990–2001 ... 40
3.9 Growth in Area of Oil Palm Plantations, 1967–2000 ... 43

Boxes

1.1 The Wallace Line ... 2
2.1 Data Sources and Difficulties ... 10
2.2 Impacts of Logging on Dipterocarp Forests ... 17
2.3 Oil Palm Development in Gunung Leuser National Park ... 21
3.1 Common Illegal Practices of Timber Companies ... 29
3.2 What Do We Mean by Illegal Logging? ... 31
3.3 Illegal Logging: A Tale of Two National Parks ... 34
3.4 Some Cases in Which Companies Have Developed Industrial Timber Plantations in Productive Natural Forest ... 37
3.5 Illegal Use of Logging Concession Land for Oil Palm in Northern Sumatra ... 44
3.6 Clearing Natural Forests for Estate Crops on Small Islands: The Case of Wawonii Island in Southeast Sulawesi Province ... 46
3.7 Transmigration and Forest Clearance ... 48
4.1 The Oil Palm-Forest Fire Connection: Why Do People Set Fires? ... 56
5.1 Regional Autonomy and Forest Management ... 62
5.2 National Parks and Indigenous People: Cooperation or Conflict? Two Cases From Sulawesi ... 65
5.3 Indonesia's 12 Commitments to the Consultative Group on Indonesia Concerning Forests and Forest Policy ... 67

Tables

1.1 Indonesia's Leading Exports, 1997 ... 5
2.1 Forest Cover in 1950 ... 8
2.2 Forest Area and Deforestation, 1985–1997 (GOI/World Bank Estimate) ... 12
2.3 Forest Area and Deforestation, 1985–1997 (GFW Estimate) ... 13
2.4 Loss of Lowland Forest in Sumatra, Kalimantan, and Sulawesi, 1900–1997 ... 14
2.5 Revisions to Permanent Forest Status Between 1986 and 2000 ... 16
2.6 Natural Forest, Potentially Degraded Forest, and Deforested Area, Mid-1990s ... 18
3.1 Ranking of Top 10 Timber Groups by HPH Holdings, 1994–95 and 1997–98 ... 28
3.2 Logging Concession Status and Area, Reported in 2000 ... 28
3.3 Forest Condition in 432 Current and Expired Logging Concessions ... 29
3.4 Timber Supply from All Legal Sources ... 32
3.5 Estimated Timber Supply-Demand Imbalance, 1997–98 ... 33
3.6 Allocation and Planting of Industrial Timber Plantations (HTIs), to December 2000 ... 38
3.7 Forested Versus Nonforested Area in 6 Industrial Timber Plantation Concessions ... 41
3.8 HPH Logging Concessions Converted to HTI Concessions, to 1998, by Province ... 41
3.9 Land Holdings of Top 10 Oil Palm Conglomerates, 1997 ... 43
3.10 The Balance Between Designated Conversion Forest Area and Applications for Conversion of Forest to Plantation Crops ... 45
3.11 Forest Area Released for Transmigration Site Development, to 1998 ... 50
4.1 Estimated Area Damaged by Fire, 1997–1998 ... 54
4.2 Summary of the Economic Cost of the 1997–1998 Fires and Haze ... 55
4.3 Health Effects of Fire-Related Haze Exposure in 8 Indonesian Provinces, September-November 1997 ... 57

Maps

Map 1 Natural Forest Cover Change in Indonesia, 1985–1997 ... 91
Map 2 Natural Forest Cover Change in Kalimantan, 1985–1997 ... 92
Map 3 Loss of Lowland, Submontane, and Montane Forest, 1985–1997 ... 93
Map 4 Extent and Distribution of Low Access and Accessed Forest, 1997 ... 94
Map 5 Fragmentation of Low Access and Potentially Low Access Forest ... 95
Map 6 Protection Status of Low Access and Potentially Low Access Forest ... 96
Map 7 Extent and Distribution of Protected Areas, Kalimantan ... 97
Map 8 Extent and Distribution of Logging Concessions ... 98
Map 9 Limited Survey of Reported Cases of Illegal Logging, 1997–1998 ... 99
Map 10 Extent and Distribution of Estate Crops in Sumatra ... 100
Map 11 Plantations in Former Logging Concessions, Sumatra and Kalimantan ... 101
Map 12 Forest Uses and Areas Burned in 1997–1998: East Kalimantan ... 102
Map 13 Limited Survey of Reported Conflicts Over Forest Resources, 1997–1999 ... 103

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FOREWORD

Indonesia is endowed with some of the most extensive and biologically diverse tropical forests in the world. Tens of millions of Indonesians depend directly on these forests for their livelihoods, whether gathering forest products for their daily needs or working in the wood-processing sectors of the economy. The forests are home to an abundance of flora and fauna unmatched in any country of comparable size. Even today, almost every ecological expedition that sets out to explore Indonesia's tropical forests returns with discoveries of new species.

But a tragedy is unfolding in Indonesia. The country now finds itself the unwelcome center of world attention, as domestic and international outrage mounts over the rampant destruction of a great natural resource. Indonesia's "economic miracle" of the 1980s and 1990s turns out to have been based, in part, on ecological devastation and abuse of local people's rights and customs. For example, one of the country's fastest growing sectors, the pulp and paper industry, has not established the plantations necessary to provide a secure supply of pulpwood. Instead, pulpmills rely largely on wholesale clearing of natural forest. The economy is plagued by lawlessness and corruption. Illegal logging has been rampant for years and is believed to have destroyed some 10 million ha of forest. Indonesia's wood-processing industries operate in a strange legal twilight, in which major companies that – until the economic crisis of 1997 – attracted billions of dollars in Western investment, obtain more than half their wood supplies from illegal sources. Wood is routinely smuggled across the border to neighboring countries, costing the Indonesian government millions of dollars in lost revenues each year.

Although the evidence of destruction is mounting, the picture has been muddied by conflicting data, disinformation, claim and counterclaim. The need for an objective appraisal of the situation is urgent – one that will provide a sound information base for every individual and organization seeking to bring about positive change.

The data difficulties are formidable, but this report sets out to meet that need. It provides a comprehensive summary of the scale and pace of change affecting Indonesia's forests and identifies the forces and actors that are driving deforestation. Forest Watch Indonesia and Global Forest Watch have compiled the best available official data and reports from environmentalists in the field to address the following questions: How much of Indonesia's forest cover is left, and how much has been lost over the past 50 years? What is the condition of remaining forest cover today? What are the major driving forces behind deforestation, and who are the principal actors? Given current political and economic conditions in Indonesia, what are the prospects for forest policy reform?

Our findings do not provide grounds for much optimism, despite clear signs of change in Indonesia. The major bilateral and multilateral donors are now working actively with the Indonesian govern-

ment to develop a strategy and action plan for reform. The Indonesian Ministry of Forestry is committed to implementing specific actions at the national level and has recently endorsed a wide-ranging regional plan to combat illegal logging.

Yet even if current policy reforms are successful, it is clear that Indonesia is in transition from being a forest-rich country to a forest-poor country, following the path of the Philippines and Thailand. Millions of hectares of former forest are now covered in degraded forest remnants, scrub, and the ubiquitous alang-alang grass. With this loss of forest, Indonesia is losing biodiversity, wood supply, income, and ecosystem services.

Degraded forest lands can be replanted and managed to provide wood, tree crops, fruits, and other nontimber products. Ecosystem services such as freshwater regulation and soil retention can be restored. Part of the tragedy of Indonesia's forests is that the current industrial timber plantation program, and the system of forest conversion to plantation crops, have not contributed to sustainable forest management but rather have accelerated deforestation. Officially, decisions in the forest sector are no longer oriented toward clearance and conversion but, in reality, clearance and conversion continue. The system should be restructured to require the establishment of new plantations on the vast areas of degraded land that are already available for planting. The requirement should be enforced.

Indonesia is at a crossroads where much of its natural resource base has been destroyed or degraded, but much still remains. Land development for plantations to supply timber and valuable export crops is a vital part of the country's economic strategy. In coming years, the easier route will be to allow logging operations and plantations – and the wasted land that accompanies their development – to spread over the remaining natural forests, rewarding developers with huge unearned windfall profits from forest clearance. The harder but ultimately more sustainable route will be to reclaim the land that currently lies idle and conserve the primary forest that remains. Sixty four million hectares of forest have been cut down over the past 50 years. There is no economic or ethical justification for another 64 million hectares to be lost over the next 50 years.

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KEY FINDINGS

Indonesia is experiencing one of the highest rates of tropical forest loss in the world.

- Indonesia was still densely forested as recently as 1950. Forty percent of the forests existing in 1950 were cleared in the following 50 years. In round numbers, forest cover fell from 162 million ha to 98 million ha.
- The rate of forest loss is accelerating. On average, about 1 million ha per year were cleared in the 1980s, rising to about 1.7 million ha per year in the first part of the 1990s. Since 1996, deforestation appears to have increased to an average of 2 million ha per year.
- Indonesia's lowland tropical forests, the richest in timber resources and biodiversity, are most at risk. They have been almost entirely cleared in Sulawesi and are predicted to disappear in Sumatra by 2005 and Kalimantan by 2010 if current trends continue.
- Nearly one half of Indonesia's forests are fragmented by roads, other access routes, and such developments as plantations.

Deforestation in Indonesia is largely the result of a corrupt political and economic system that regarded natural resources, especially forests, as a source of revenue to be exploited for political ends and personal gain.

- Logging concessions covering more than half the country's total forest area were awarded by former President Suharto, many of them to his relatives and political allies. Cronyism in the forestry sector left timber companies free to operate with little regard for long-term sustainability of production.
- As part of the effort to boost Indonesia's export revenues, and to reward favored companies, at least 16 million ha of natural forest have been approved for conversion to industrial timber plantations or agricultural plantations. In many cases, conversion contradicted legal requirements that such plantations be established only on degraded land or on forest land already allocated for conversion.
- Aggressive expansion of Indonesia's pulp and paper industries over the past decade has created a level of demand for wood fiber that cannot currently be met by any sustainable domestic forest management regime.
- Forest clearance by small-scale farmers is a significant but not dominant cause of deforestation.

Illegal logging has reached epidemic proportions as a result of Indonesia's chronic structural imbalance between legal wood supply and demand.

- Illegal logging, by definition, is not accurately documented. But a former senior official of the Ministry of Forestry recently claimed that theft and illegal logging have destroyed an estimated 10 million ha of Indonesian forests.
- Massive expansion in the plywood, pulp, and paper production sectors over the past two decades means that demand for wood fiber now exceeds legal supplies by 35-40 million cubic meters per year.
- This gap between legal supplies of wood and demand is filled by illegal logging. Many wood processing industries openly acknowledge their dependence on illegally cut wood, which accounted for approximately 65 percent of total supply in 2000.
- Legal logging is also conducted at an unsustainable level. Legal timber supplies from natural production forests declined from 17 million cubic meters in 1995 to under 8 million cubic meters in 2000, according to recent statistics from the Ministry of Forestry. The decline has been offset in part by timber obtained from forests cleared to make way for plantations. But this source appears to have peaked in 1997.
- Industrial timber plantations have been widely promoted and subsidized as a means of supplying Indonesia's booming demand for pulp and taking pressure off natural forests. In practice, millions of hectares of natural forest have been cleared to make way for plantations that, in 75 percent of cases, are never actually planted.

More than 20 million hectares of forest have been cleared since 1985, but the majority of this land has not been put to productive alternative uses.

- Nearly 9 million ha of land, much of it natural forest, has been allocated for development as industrial timber plantations. This land has already been cleared or will be cleared soon. Yet only about 2 million ha have actually been planted with fast-growing species, mostly *Acacia mangium*, to produce pulpwood. The implication: 7 million ha of former forest land are lying idle.

- Nearly 7 million ha of forest had been approved for conversion to estate crop plantations by the end of 1997, and this land has almost certainly been cleared. But the area actually converted to oil palm plantations since 1985 is about 2.6 million hectares, while new plantations of other estate crops probably account for another 1-1.5 million ha. The implication: 3 million ha of former forest land are lying idle.

- No accurate estimates are available for the area of forest cleared by small-scale farmers since 1985, but a plausible estimate in 1990 suggested that shifting cultivators might be responsible for about 20 percent of forest loss. This would translate to clearance of about 4 million ha between 1985 and 1997.

- The transmigration program that relocated people from densely populated Java to the outer islands was responsible for about 2 million ha of forest clearance between the 1960s and the program's end in 1999. In addition, illegal migration and settlement by pioneer farmers at the margins of logging concessions, along roads, and even in national parks has greatly accelerated since 1997, but reliable national-scale estimates of forest clearance by forest pioneers have not been made.

- Large-scale plantation owners have turned to the use of fire as a cheap and easy means of clearing forest for further planting. Deliberate fire-setting, in combination with unusually dry conditions caused by El Niño events, has led to uncontrolled wildfires of unprecedented extent and intensity. More than 5 million ha of forest burned in 1994 and another 4.6 million ha burned in 1997-98. Some of this land is regenerating as scrubby forest, some has been colonized by small-scale farmers, but there has been little systematic effort to restore forest cover or establish productive agriculture.

The Indonesian government is facing mounting pressure domestically and internationally to take action, but progress is slow and not all policy reforms in process are necessarily good news for forests.

- In the freer political atmosphere that followed the fall of President Suharto in 1998, environmental activists have demanded greater accountability from both the government and the private sector. Access to official information has improved, but efforts to prevent the worst abuses of corporate power have met with limited success.

- Numerous forest-dependent communities, sensing the weakening of central power, have erupted violently against logging and plantation operations that they consider to be plundering their local resources. Longstanding problems of unclear land tenure rights are the root cause of many such conflicts. The government is no longer willing to protect corporate interests as it once did, but neither does it appear to have any coordinated plan for dealing with the problem.

- Since 1999, Indonesia's principal aid donors have coordinated their assistance through a consortium called the Consultative Group on Indonesia (CGI), chaired by the World Bank. Improved forest management has been declared a priority, and the Government of Indonesia has committed to a 12-point plan of policy reform. But continuing political turmoil seems likely to undermine these efforts. In April 2001, the then-Forestry Minister acknowledged many failures, saying that Indonesia should not have agreed to "such unrealistic targets." As one example, the government imposed a moratorium on further conversion of natural forest in May 2000, but the ban is widely disregarded in the provinces.

- Indonesia is moving rapidly toward a new system of "regional autonomy," but the provincial and district governments that will benefit from decentralization are largely without the capacities or funds needed to govern effectively. Raising short-term revenue will be a top priority and, as a result, intensified exploitation of forest resources is already occurring in many regions.