CRITICAL ECOSYSTEM PARTNERSHIP FUND

Ecosystem Profile

Sumatra Forest Ecosystems
Of the
Sundaland Biodiversity Hotspot

Indonesia

FINAL VERSION
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CONTENTS

INTRODUCTION

The Critical Ecosystem Partnership Fund (CEPF) is designed to better safeguard the world's threatened biodiversity hotspots in developing countries. It is a joint initiative of Conservation International (CI), the Global Environment Facility (GEF), the Government of Japan, the MacArthur Foundation and the World Bank. CEPF provides financing to projects in biodiversity hotspots — areas with more than 60 percent of the Earth's terrestrial species diversity in just 1.4 percent of its land surface. A fundamental purpose of the Fund is to ensure that civil society is engaged in efforts to conserve biodiversity in the hotspots. An additional purpose is to ensure that those efforts complement existing strategies and frameworks established by local, regional and national governments.

CEPF will promote working alliances among community groups, NGOs, government, academic institutions and the private sector, combining unique capacities and eliminating duplication of efforts for a more comprehensive approach to conservation. CEPF is unique among funding mechanisms in that it focuses on biological areas rather than political boundaries, aiming to maximize biological survival through the establishment of a portfolio of projects which all contribute, where possible, to an integrated landscape-scale program of conservation. It will also focus on transboundary cooperation when areas rich in biological value straddle national borders or in areas where a regional approach will be more effective than a national approach. CEPF aims to provide civil society with an agile and flexible funding mechanism complementing funding currently available to government agencies.

A key step in the development of this ecosystem profile was a series of three stakeholder consultation workshops, each lasting two full days. Consultations were held in north, central, and south Sumatra to compare conditions and to cover the island's major biogeographic zones. One workshop was hosted by an international NGO, another by a national NGO, and a third by a provincial university. Participant mix favored local NGOs and community leaders, but included representatives of academia, district parliaments, district managers, forest industries, the military, and agencies responsible for protected areas. The process also entailed a three-day consultation with natural scientists and economists. A total of 223 people were consulted in the development of this ecosystem profile. The information gathered from these stakeholder consultations led to CEPF's decision to focus support at the district level and below. Geographic priorities were identified by CEPF and its advisors based on the highest levels of threat to the areas of highest biodiversity, and on existing opportunities to establish strategic partnerships and enhance successful projects and programs already underway.

In summary, CEPF offers an opportunity to promote the conservation of some of the most important ecosystems in the world — places of high biodiversity and great beauty. CEPF will promote the engagement of a wide range of public and private institutions to address conservation needs through coordinated regional efforts.

The Ecosystem Profile

The purpose of the ecosystem profile is to provide an overview of the causes of biodiversity loss in a particular region and to couple this assessment with an inventory of current conservation activities in order to identify the niche where CEPF investment can provide the greatest incremental value. The ecosystem profile is intended to recommend broad strategic funding directions that can be implemented by civil society to contribute to the conservation of

biodiversity in the targeted region. Applicants propose specific projects consistent with these broad directions and criteria. The ecosystem profile does not define the specific activities that prospective implementers may propose in the region, but outlines the conservation strategy that will guide those activities. For this reason, it is not possible or appropriate for the ecosystem profile to be more specific about the site or scope of particular projects or to identify appropriate benchmarks for those activities. Applicants will be required to prepare detailed proposals that specify performance indicators.

In summary, the ecosystem profile is a five-year investment strategy intended to guide CEPF grantmaking. The grants and grantees will define the specific interventions supported by CEPF.

BACKGROUND

The Sundaland Hotspot covers the western half of the Indonesian archipelago, a group of some 17,000 islands stretching 5,000 kilometers along the Equator between Asia and Australia. The hotspot includes some of the largest islands in the world and is adjacent to three other hotspots: Wallacea to the east, Indo-Burma to the west, and the Philippines to the north. Together, these four hotspots constitute one of the two greatest concentrations of terrestrial and freshwater species diversity on Earth — the other being in northern South America.

Sundaland encompasses some 1.6 million square kilometers, dominated by the islands of Borneo and Sumatra. The topography includes high mountain ranges, volcanoes, alluvial plains, lakes, swamps, and shallow coastal waters. Indonesian alone is home to 10% of the world's known plant species, 12% of all mammals, 17% of all birds, 16% of all reptiles and amphibians, and 25% of all fish. Sundaland has six endemic bird areas, as well as 15,000 endemic plant species, 139 endemic bird species, 115 endemic mammal species, 268 endemic reptile species, and 280 endemic freshwater fish species.

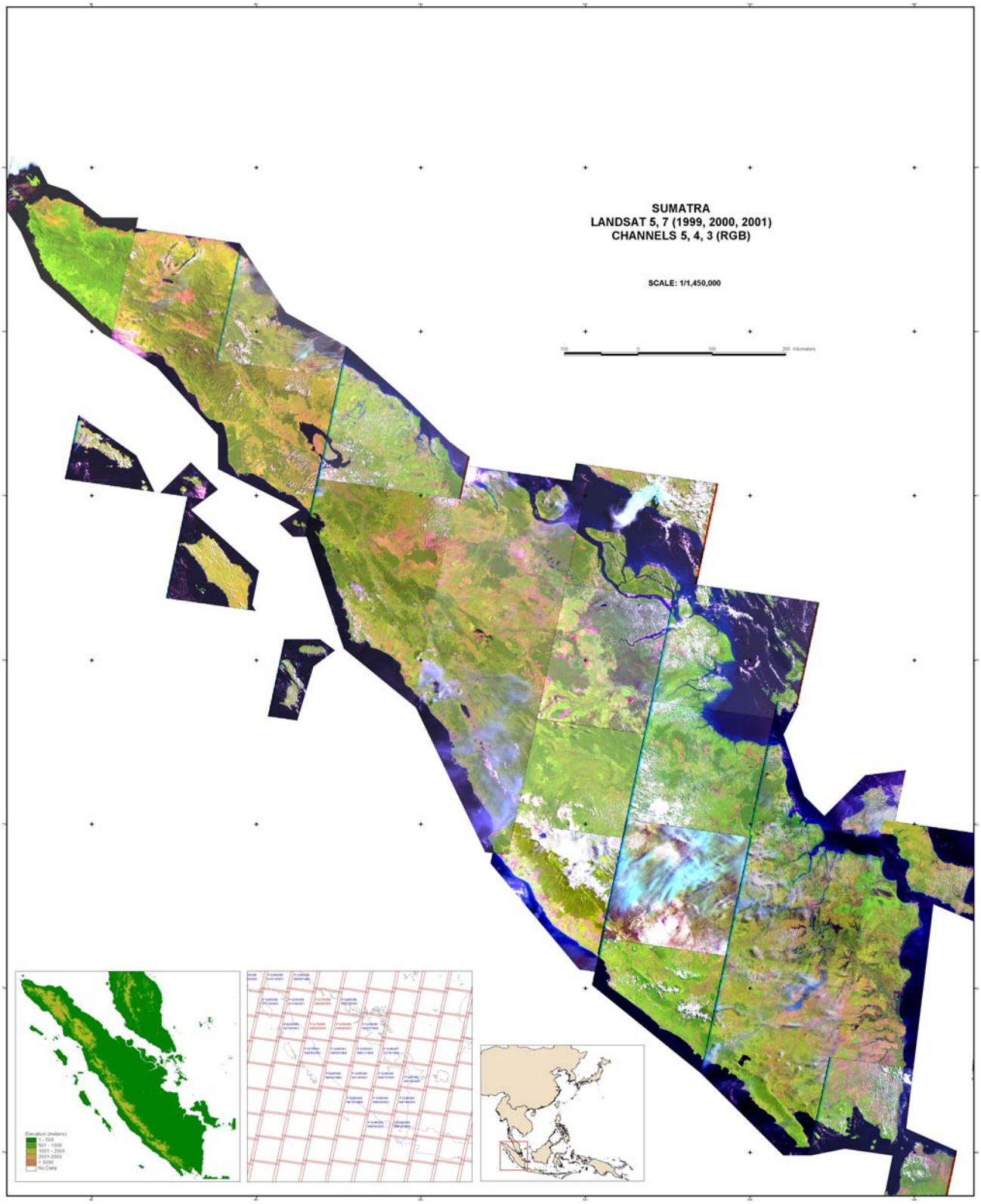
Prioritization of Sumatra Within the Hotspot

Sumatra, which measures 1,800 kilometers long and 400 kilometers wide, is the focus of CEPF's first investment in Sundaland because it arguably holds the hotspot's highest levels of biodiversity under the most severe threat. Sumatra has the most mammals (210 species) of any Indonesian island. Sixteen species of mammal are endemic to Sumatra, and another 17 are endemic to the adjacent Mentawai Islands. Sumatra's endemic primate diversity per unit area is unmatched anywhere on Earth. Eight endemic mammals in Sumatra and the Mentawai Islands are listed in the IUCN *Red List of Threatened Species* and on the Appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Sumatra's bird list numbers 582 species, of which 465 are resident and 14 are endemic, making it the second richest biogeographic region for birds in Indonesia after Papua. According to BirdLife International, there are 34 Important Bird Areas (IBAs) on Sumatra, of which 54% are outside protected areas and 18% are in critically threatened lowland forests. Of 300 Sumatran reptile and amphibian species, 69 (23%) are endemic. Sumatra's freshwater systems hold 270 species, of which 42 (15%) are endemic.

Most of Sumatra's endemic plant species are found in lowland forests below 500 meters, though only about 15% of the total may have been recorded to date. Less than 40% of Sumatra's original natural forest remains. The rate of deforestation currently averages 2.5% per year, and is most acute in the species-rich lowland and hilly-lowland forests. Scientists predict that all of

Sumatra’s lowland rainforests will be gone by 2005.



Levels of Protection for Biodiversity

Indonesia, and Sumatra in particular, is no newcomer to the concept of conservation. In fact, conservation has been the focus of considerable attention since the Dutch colonial era. In 1997, at the time of Indonesia's economic crisis, the government was spending between $22 million and $33 million per year on protected areas, up to 20% of which came from international donors.

To date, the Indonesian Government has declared 73 conservation areas on Sumatra (see Table 1 and Figure 1). However, even existing protected areas are not secure, and many, if not most, are losing their forest cover in the face of relentless pressures.

Table 1: Protected areas in Sumatra

CONSERVATION AREA	NO.	HECTARES
Nature Reserves	30	47,190
Wildlife Reserves	14	628,657
Game Parks	5	129,650
Grand Forest Parks	5	81,386
National Parks	7	3,430,390
Recreation Parks	10	20,376
Marine Recreation Parks	2	230,100
Total	73	4,567,749

Source: PKA Statistical Data, 1999

The Directorate-General for Forest Protection and Nature Conservation (PHPA) in the Ministry of Forestry is responsible for protected areas. However, actual on-the-ground management of protected areas — including watershed and buffer forests, production forests, and parks — is now devolving to the district level. In addition to the current confusion over responsibility, local governments face the problem of raising much of their revenue from within their districts. This creates tension between local governments and conservation officials, as protected areas occupy land for which no land taxes are collected. To date, ecotourism in national parks has not contributed sufficient revenue to offset this loss in taxes. Most Indonesian NGOs interviewed for this ecosystem profile believed that conservation outcomes largely will be determined by the attitudes and actions at the district level, regardless of national policies.

Encroachment into protected areas makes restoration and conservation of forest corridors increasingly difficult. The protected areas themselves face a number of basic management problems, including:

- lack of political will;
- corruption and bribery;
- poor staff morale and lack of incentives for good performance;
- limited capacity for resource conservation and law enforcement;
- insufficient funding; and,
- hostility from private sector and civil society.

In September 2001, the government renewed commitments to stop illegal loggers, especially those operating in national parks. Unfortunately, rampant illegal logging and corruption remain in evidence.

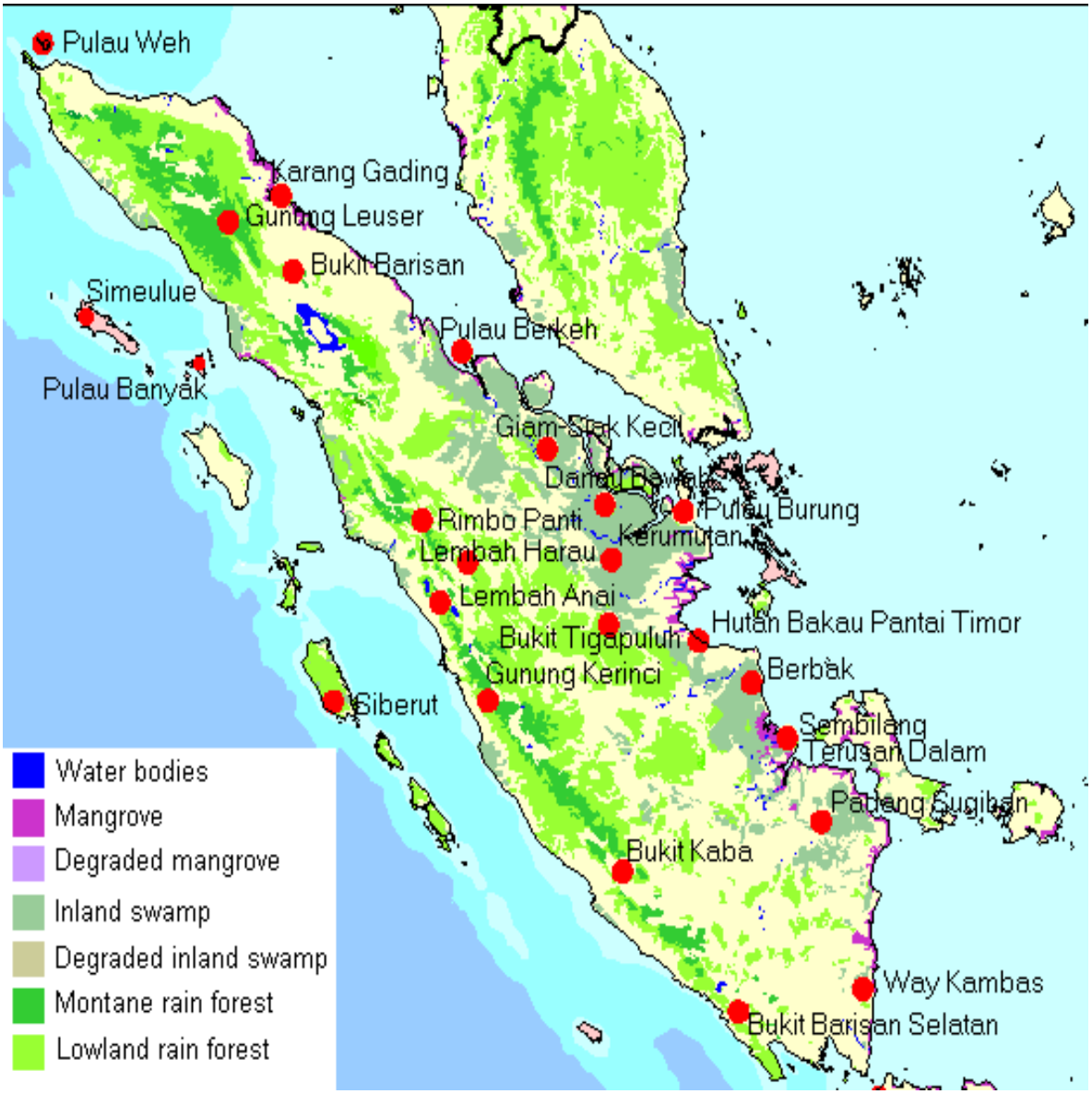


Figure 1: Protected Areas of Sumatra

SYNOPSIS OF THREATS

The deteriorating status of protected areas and the rapid felling of lowland forest pose the greatest general tangible threats to Sumatra's biodiversity. Before discussing other key threats, it is important to consider their root causes:

- **Lack of political will.** Despite declarations at the national level aimed at stopping illegal forest destruction and illegal wildlife trade, there is little political will or organized concern to do so at the local level.
- **Poverty.** In the year following the 1997 economic crisis, the living standard for 15 million more Indonesians fell below the poverty line. By 1999, 18.2% lived in poverty. In early 2001, per capita GDP was $2,685.
- **Corruption, collusion, and nepotism.** Misuse of authority for personal gain is a widespread, well-documented legacy from the Suharto era. Military involvement in extraction of forest resources also is a carry-over from this time.

- **Dysfunctional law enforcement.** The absence of the rule of law, especially in the forestry sector, is widely acknowledged, even in official statements by Indonesia's Forestry Minister.
- **Strong incentives favoring extraction and forest conversion.** Profits in the oil palm industry and bankruptcy in the pulp and paper industry encourage large-scale felling, burning, and conversion of forests. Meanwhile, the felling and conversion processes provide much-needed — if ultimately unsustainable — livelihood for local communities.
- **Insufficient incentives favoring conservation.** The values of ecological services (e.g. flood control, watershed functions, and well-managed harvest of forest products) are poorly understood, while penalties for illegal extraction from forests are nil.

Decentralization

Legislation mandating regional autonomy, which went into effect in January 2001, is fundamentally reshaping the relationship between the central government in Jakarta and local authorities in all sectors, including forestry. There now are 78 local decision-making bodies on Sumatra. Provincial and district authorities are increasingly resistant to old-style, centrally-organized initiatives. At the same time, the central government remains responsible for protected areas. In many cases, this has led to a paralysis in protected area management.

Despite a confusion of protected-area jurisdiction between central government and district-level authorities, the trend toward decentralization opens the door to increased local participation in allocation and management of natural resources and more government accountability at the local level. However, if poorly executed, decentralization also poses a substantial risk of accelerating environmental degradation.

Illegal and Legal Logging

Unsustainable and illegal extraction of timber and nontimber forest products is rampant throughout Sumatra, sometimes with the support of the military, national police, and timber and pulp and paper industries. The price of illegal timber has undercut that of legal timber, leaving legal operations at an economic disadvantage. This situation is exacerbated by the increased demand for timber from China as a result of its own logging ban. Illegal timber from Sumatra is being laundered through Malaysia to feed the demand from China, North America, Europe, and Japan.

The pulp and paper industry is a major driver of the threat posed by logging. Indah Kiat, one of Sumatra's largest pulp and paper companies, used 6.8 million cubic meters of pulpwood in 1999, about 87% of which was processed from wood generated from forests rather than its own plantations. This company's situation is similar to other pulp and paper operations in Sumatra, whose collective need for wood is approximately eight times the available plantation supply. In addition, extreme debt and bankruptcies are inducing pulp and paper companies to clearcut lowland forests at unprecedented rates.

Oil Palm Plantations

In the Sumatra's Jambi Province, the regional government is promoting expansion of oil palm plantations. The provincial governor has announced plans to convert 1 million hectares of forest to oil palm by 2005. The situation in Jambi mirrors the magnitude of proposed oil palm expansion under development in at least Riau Province and in north Sumatra.

At the same time, forest fires are rampant throughout Sumatra, especially in the central and southern regions. As the price of palm oil has increased, land-hungry plantation developers in Sumatra have deliberately burned large areas of forest. In the 1990s, plantations and land-clearing contractors used fire as the primary mechanism to clear land.

Illegal Hunting and Wildlife Trade

Illegal hunting and illegal wildlife trade are rampant in Sumatra. The monetary incentives for poaching are high, while awareness and enforcement of wildlife-trade regulations is low. Local politicians and military officials reportedly are involved in illegal hunting, and one military official was arrested and prosecuted for poaching tigers in Way Kambas Nature Reserve and selling their skins.

Road Construction

Roads are the routes along which settlers and illegal logging trucks gain access to once-remote forest areas and all species within. Logging roads often then become formal transportation routes adopted by local governments. In most areas of Sumatra, the building of logging roads marks the first stage of total forest loss. Local governments seem keen to accommodate road construction as a form of income generation in itself.

Satellite images document hundreds of logging roads crisscrossing deep into protected forests and national parks. Aceh Province has a plan to construct a system of feeder roads extending from Banda Aceh south to the Leuser Ecosystem boundary. A road was built recently in the Kerinci Seblat National Park despite policies prohibiting it. In general, road construction patterns suggest that further forest fragmentation is imminent.

Mining

A mining boom encouraged by the Suharto regime began in the 1990s, causing road building into formerly isolated areas, forest destruction, increased flooding, and pollution of rivers. A Sumatran NGO asked for the closure of a gold and silver mining operation in South Sumatra because of the contamination of adjacent river systems and a loss of water resources to thousands of nearby villagers, among other concerns.

Civil Conflict

The general atmosphere of uncertainty and the transfer of authority to local governments have led to a breakdown in the rule of law. Old rivalries among ethnic groups, classes, and occupations (e.g. farmers and national park police) compromise the effectiveness of protected-area management. Civil strife in northern Sumatra and generalized lawlessness and ethnic or religious tensions in other areas of the island pose pervasive and ongoing threats. The civil war in Aceh Province may actually favor forest conservation at present, as logging and milling operations are disrupted by security concerns. Unfortunately, however, insurgents are reportedly harvesting forest products to fund their rebellion. The extent of this activity is unknown. On the other hand, changes in government policy are expected to give the Acehinese control over their own natural resources — a development that could be an opportunity or a threat.

Other civil society factors contributing to loss of biodiversity include the public perception that Sumatra's national parks were established illegally. This view has contributed to a long history of conflict with conservation authorities. In some cases, local communities are holding their

ground and staking claim to land contained within protected areas. In the face of violence, national park authorities have unsurprisingly abdicated their conservation mandate.

SYNOPSIS OF CURRENT INVESTMENTS

The amount of funding for conservation initiatives in Sumatra expected over the next three years appears to be modest and, certainly, significantly less than in the recent past. Based on interviews with current and potential investors, reasons for the decline are primarily lack of political will favoring conservation and few successes coming from millions of dollars already invested in conservation projects.

In addition to the government of Indonesia, the major investors in Sumatran conservation include the European Union, the Global Environment Facility, the United Nations Development Programme, and the World Bank. The following is a summary of major investors only, to provide a context for CEPF investment. NGOs are listed only if they invest their own institutional funds, as opposed to carrying out work in Sumatra with funds from other investors.

Multilateral Donors

The World Bank: The Kerinci Seblat National Park integrated conservation and development project (ICDP) is a six-year program financed by the World Bank, the Global Environment Facility, and the government of Indonesia, which includes major contracts to Flora and Fauna International (FFI), World Wide Fund For Nature (WWF) and the Conservation Information Forum. The World Bank has invested $19.2 million as a loan for development and planning activities. The objective of this project is to secure the biodiversity of the park and to stop further habitat fragmentation by improving park protection and management, especially by increasing the participation of local communities promoting sustainable management of the park's biodiversity; and supporting the maintenance of permanent forest cover in the remaining buffer zone concession areas.

Global Environment Facility: The GEF is investing $940,000 in Conservation International's Forests and Media (INFORM) Project. This new project has the primary objective of generating an upwelling of interest and concern among the general public and key decision-makers concerning the critical, potentially terminal, loss of forest biodiversity in western Indonesia, and leading to a movement toward a sustainable forest management system for the region.

The Kerinci Seblat ICDP also involves the GEF, which is funding $15 million of the total $46 million estimated budget.

The Conservation of Elephant Landscapes in Aceh (CELA) is being implemented by FFI with $750,000 invested by the GEF. The primary objective is to conserve biologically rich forest ecosystems in northern Aceh Province, focusing on lowland forests that are important wildlife corridors, especially for elephants, and maintaining biological corridors between the Gunung Leuser Ecosystem and northern Aceh forests.

The Greater Berbak-Sembilang Integrated Coastal Wetlands Conservation Project is funded by the GEF and executed by Wetlands International. The $732,000 project aims to prepare and implement a management plan for the Greater Berbak-Sembilang Ecosystem based on conservation values and socioeconomic needs; expand the national parks within the ecosystem;

strengthen national park management; and increase community and NGO involvement in park management and biodiversity conservation.

United Nations Development Programme: With $800,000 over three years from UNDP-GEF, BirdLife International is studying the conservation needs of 34 Important Bird Areas in Sumatra.

The UNDP/GEF Small Grants Program has invested $1.5 million in Indonesia, some of it in Sumatra. The SGP provides grants of up to $50,000 and other support to community-based groups and NGOs for activities that address biodiversity conservation.

European Union: The Gunung Leuser Development Programme, with an EU investment of $29 million from 1995-2002, is based on the premise that if the ecosystem is properly conserved, the ecological services that emanate from it will be of lasting benefit to its 3 million human residents.

The EU's investment in the South Sumatra Forest Fire Management Project (SSFFMP) will total $7.7 million over the next five years. The objective of this project is to establish procedures for a decentralized mechanism for the rational and sustainable management of Indonesia's island and forest resources.

Asian Development Bank: Capacity Building for Decentralized Natural Resources Management (formerly Decentralized Resource Management Capacity) is a $775,000 project in preparation to aid the ongoing decentralization process in Indonesia, with the aim of building the capacity of Provincial and District Planning Agencies (BAPPEDAs) to shoulder their new responsibility in natural resource management planning and implementation.

Government Agencies

Indonesia: The Indonesian government is working with the EU to co-finance the Gunung Leuser Development Programme, contributing $16 million from its Reforestation Fund. The government is adding $13 million to the World Bank and GEF investments in the Kerinci Seblat ICDP.

Through its Directorate General of Forest Protection and Conservation, the government will allocate $5.2 million over the next 12 months for conservation and protected area management in Sumatra. According to experts interviewed for this ecosystem profile, this amount is approximately 20% of the minimum required for proper management and development of Sumatra's protected area system.

U.S. Agency for International Development: USAID has awarded Conservation International $300,000 to raise public awareness of the potential extinction of the orangutan and other endemic Sumatran species in the Gunung Leuser ecosystem. The project includes capacity building for park and relevant law enforcement personnel and building a core force of local monitors within the park that enhance the ability of park guards to protect the orangutan and its habitat.

U.S. Fish and Wildlife Service: The USFWS Division of International Conservation Multinational Species Conservation Funds are investing a total of $368,570 in projects on Sumatra aimed at conserving elephants, tigers and gibbons.

Nongovernmental Organizations

Conservation International: CI 's groundwork in Sumatra was laid in the early 1990s, with a small investment in research and support to a local NGO on Siberut Island for assessing alternative-income development opportunities for buffer zone communities. Since then, CI has invested more than $300,000 for various conservation projects, including an assessment of the "Seulawah Corridor" in Aceh, and a carbon-offset feasibility study. (Other CI projects on Sumatra are listed under GEF and USAID above.)

Save the Tiger Fund: The STF has been investing in tiger conservation initiatives in Sumatra since 1995. As of 2001, the STF was supporting two field-based projects in Sumatra: a $195,700 grant for a fourth year of the Wildlife Conservation Society's field study and management of tigers in Bukit Barisan Selatan National Park in southern Sumatra, helping to formulate a nationwide tiger conservation strategy, and a $95,000 grant to FFI to train authorities in Kerinci Seblat National Park to prevent tiger poaching.

Wildlife Conservation Society – Indonesia: The WCS has invested in biological research in Indonesia for more than a decade and now maintains a program office in Bukit Barisan Selatan National Park. Grants aside, the institution currently is investing $300,000 per year in southern Sumatra, an amount that has been growing at about 20% per year. Subjects of its current research in Bukit Barisan Selatan include large mammals; the effects of forest fires on vegetation and wildlife; orangutan ecology and conservation, and related training of local scientists; frugivore abundance and distribution in the park and throughout Indonesia; behavioral ecology of the siamang; and habitat selection and partitioning by squirrels. WCS also is conducting a conservation assessment for elephants in Lampung Province.

Larger policy initiatives by WCS country directors focus on Lampung Province, and in Bogor and Jakarta at the national level. The program promotes conservation and stewardship of Indonesia's rich biodiversity, particularly in Bukit Barisan Selatan. The wide variety of ecological research is complemented by sociological studies, policy initiatives, and analysis of data gathered by remote sensing. Using satellite images and GIS, researchers are tracking threats to Bukit Barisan Selatan, such as logging and land clearing, and their impact on wildlife. In addition, WCS has plans for helping build capacity of local NGOs to manage natural resources.

World Wide Fund for Nature – Indonesia: WWF – Indonesia has been working with the Director General of Kerinci Seblat National Park since 1990 to safeguard the park's biodiversity through a sustainable resource management system. Since 1996, WWF – Indonesia has been supporting integrated conservation measures in Bukit Tigapuluh National Park with special emphasis on tigers. Anti-poaching units have just been set up and are operating in the park.

In 1998, WWF – Indonesia began a project to provide long-term technical assistance to relevant authorities to strengthen implementation of CITES by monitoring traded species and products and by advising local authorities in the enforcement of trade policies. WWF – Indonesia is developing a manual for police and customs officials to identify products derived from endangered species. At the same time, an educational campaign is under development to raise consumer awareness of wildlife trade regulations.

As part of the international WWF Asian Rhino and Elephant Action Strategy (AREAS), WWF – Indonesia is surveying elephant populations, assisting with mitigation of human/wildlife conflict, monitoring illegal trade (through TRAFFIC) in rhino and elephant parts, and conducting related communications and outreach efforts. In Sumatra, WWF and local governments are proposing the Tesso Nilo forest complex as an elephant reserve and demonstration project for mitigation of human/elephant conflict.

Annually, WWF – US is investing approximately $120,000 in Riau Province for AREAS work, $50,000 for tiger work in Bukit Tigapuluh, and $125,000 for AREAS in Bukit Barisan Selatan.

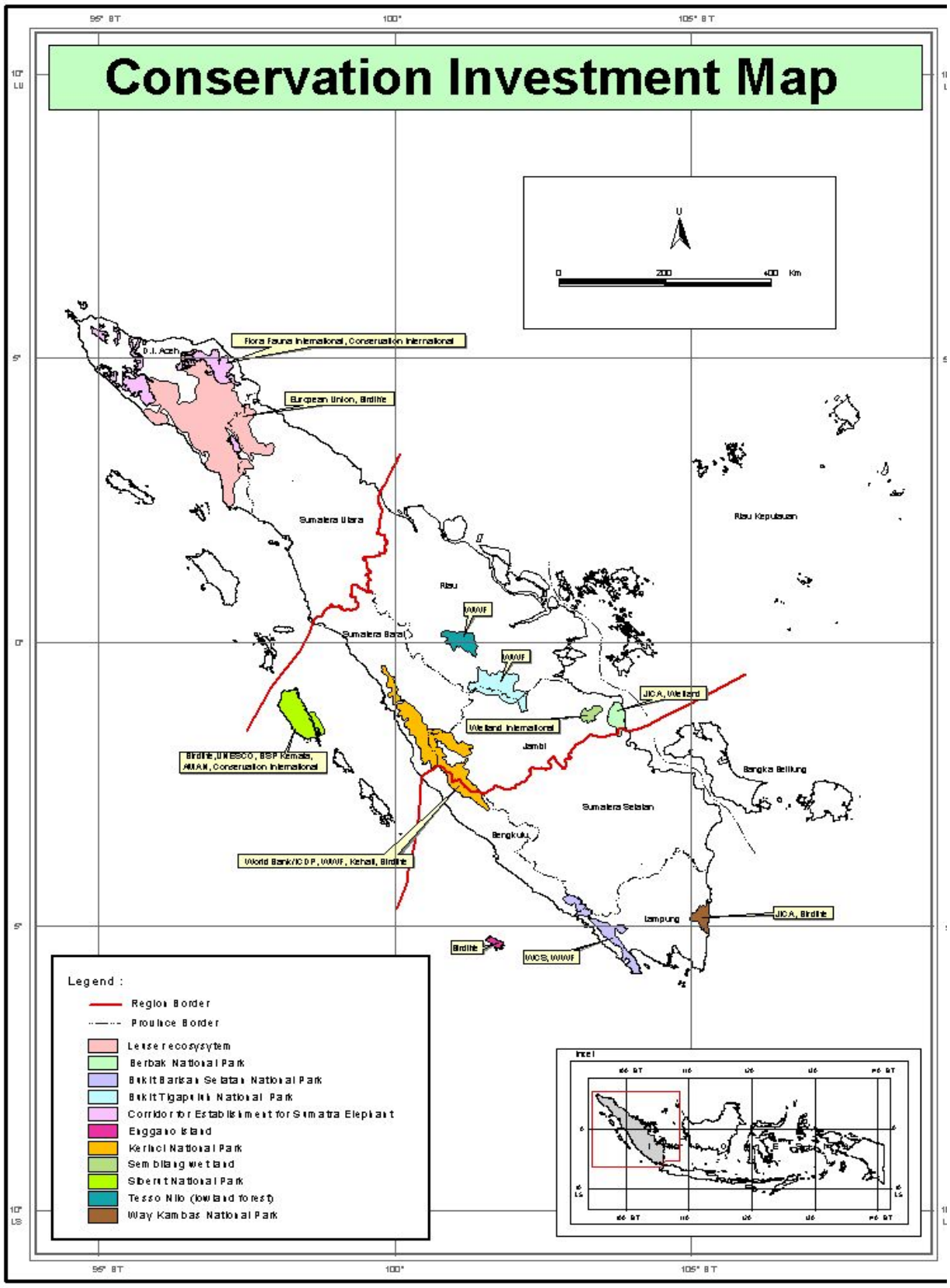


Figure 2: Conservation Investments in Sumatra

CEPF NICHE FOR INVESTMENT IN SUMATRA

Gaps in current and projected conservation investment on Sumatra are not necessarily programmatic or geographic. Most "gaps" actually result from a lack of conservation success, caused by the absence of political will and rule of law. CEPF will be a smaller investor than others who have grappled with these obstacles in the past. However, CEPF will partner with individuals and organizations in the field who have had small but proven conservation successes and can place themselves "alongside" civil society, with the aim of engendering stewardship of forest resources by means specific to each local context.

Stakeholder consultations in compiling this ecosystem profile underscored the need for CEPF to support people and conservation efforts at the district level and below. They also noted that a tradition of working in isolation has kept Sumatra's NGOs fragmented and, therefore, weak in relation to threats to biodiversity. Fortunately, Sumatran NGOs themselves recognize this weakness and wish to form coalitions and alliances that will allow them to address key issues in a manner that avoids duplication of effort, takes advantage of each organization's strengths, and builds collective political influence.

Based on these recommendations to focus funds at the local level in support of coordinated conservation efforts, CEPF will seek projects at the district level and below, with the aim of enhancing local stewardship of forests and building alliances among conservation-minded individuals, NGOs and private sector interests. In doing so, CEPF would provide mostly small- to medium-sized grants ($50,000 or less) to civil society for projects and programs that may not have been beneficiaries of previous conservation investments. Delivering funds in this way will require working in partnership with new and existing Sumatran conservation projects and programs.

Because CEPF will be disbursing a relatively small amount of money over five years, the Fund has chosen a geographic as well as a demographic niche. Four areas of geographic focus were chosen on the basis of: amount of remaining species-rich lowland forest; estimated time remaining before that forest disappears; number of existing successful conservation programs present; and presence of potential conservation partnerships. On the basis of these criteria, CEPF will focus on the following areas (listed north to south), with the understanding that levels of funding support will vary according to absorptive capacity of local NGOs and partners, political climate, biodiversity assessments, and other key factors likely to change over the course of CEPF investment.

Seulawah–Leuser–Angkola – The stakeholder process for this ecosystem profile, which included members of the Achinese independence movement, indicated that there are opportunities to work with local partners in conserving large tracts, if not corridors, of these relatively well-preserved lowland and montane forests, which are home to orangutans, elephants, and tigers. Since this is a massive landscape of varying political and religious interests, partnerships toward a broader corridor-conservation effort will take time to form and coordinate. However, in part due to inaccessibility caused by civil conflict, these forests may persist longer than those in the lowlands of central and southern Sumatra.

Siberut Island – The Mentawai Islands adjacent to Sumatra actually hold more endemic mammals (17) than Sumatra proper (16). Siberut Island is of particular importance for its

remaining biodiversity, but also because of its already active conservation-minded civil society. Small amounts of funding on Siberut are likely to leverage tangible and substantive conservation results.

Tesso Nilo–Bukit Tigapuluh – These two areas, the Tesso Nilo forest and Bukit Tigapuluh National Park, are the largest patches of Sumatra's remaining lowland forests, which some scientists predict will be gone by 2005 without successful conservation intervention. Surveys have shown that these areas are home to tigers, elephants, sun bears, and several primate species.

Bukit Barisan Seletan – This gazetted national park has approximately 365,000 hectares of intact, species-rich hilly lowland forest. Unlike Tesso Nilo-Bukit Tigapuluh, BBS is under less pressure from illegal logging and, instead, is losing forest at a slower rate primarily due to encroaching human settlements. It is known for its tiger, elephants, and one of the largest remaining populations of Sumatran rhinos.

Finally, and perhaps most importantly, it should be noted that CEPF support in Sumatra will be agile and flexible, as political climate and conservation opportunities dictate.

CEPF INVESTMENT STRATEGY AND PROGRAM FOCUS

Because of Indonesia's decentralization policy, many opportunities for conservation of biodiversity in Sumatra lie at the district level and below. Some conservation projects in Indonesia have shown promise in building the capacity of local communities and organizations to participate in and advocate for conservation of natural resources. For this reason, the CEPF niche will focus primarily on enabling key actors at local levels to take on forest stewardship with adequate capacity, coordination, collaboration, incentives and political voice.

The table below summarizes the strategic funding directions for CEPF in Sumatra.

CEPF Strategic Directions	CEPF Investment Priorities
1. Enhance stewardship of forest resources at district level and below	1.1 Raise awareness of value of ecological services 1.2 Raise awareness of options for benefiting from conservation of ecological services and forest products 1.3 Raise awareness of responsibility to conserve biodiversity 1.4 Build capacity for planning and implementation of sustainable resource management 1.5 Build capacity of civil society to monitor forest extraction
2. Empower civil society to organize in favor of conserving biodiversity	2.1 Increase representation of civil society in NGOs 2.2 Build capacity of civil society groups to organize forest resource protection functions 2.3 Support NGO activities advocating legal and sustainable forest extraction 2.4 Support NGO activities to stop illegal forest extraction
3. Build alliances among conservation-minded groups in civil society and the private sector	3.1 Build capacity among NGOs for facilitation and conflict mediation 3.2 Support collaboration and cooperation among conservation-minded NGOs 3.3 Support communications mechanisms linking conservation-minded NGOs with one another and the private sector
4. Assess impact of conservation interventions at district level and below	4.1 Build capacity of civil society to map and track activities affecting conservation of natural resources and changes in biodiversity 4.2 Support periodic monitoring of civil society's attitudes toward biodiversity conservation in target areas 4.3 Support comprehensive analysis of available data on land use, species presence, and conservation threats

Enhance stewardship of forest resources at district level and below

Conservation failures in Sumatra have shown that civil society at the district level and below may not realize the value of or potential benefits from conserving ecological services and natural resources. Therefore, CEPF will support activities which enlist civil society's appreciation of, interest in, and action on behalf of stewarding forest resources. In cases where civil society may already value forest resources, CEPF will support activities which help them understand the entire menu of options available for livelihoods other than illegal logging or forest clearing for plantations. In other cases, CEPF may support efforts to raise awareness of the responsibilities for forest stewardship, as dictated by family or religious values. Some segments of civil society may already value and desire forest conservation, but lack knowledge of how to do so, in which cases CEPF would support building such knowledge and skills. Where relevant, CEPF funds may train civil society how to inventory natural resources and monitor their harvest.

Empower civil society to organize in favor of conserving biodiversity

If the opportunities for reasoned forest-resource management lie at the district level and below, then local civil society will need to organize and take action against rampant unsustainable — and oftenillegal — harvest of timber and non-timber forest products. It follows that pockets of conservation-minded locals will need to learn about, and communicate with, other like-minded individuals, pooling their efforts and amass political strength. In some cases, CEPF will support the formation of new NGOs, and in others it will support the expansion of existing NGOs. Once conservation-minded NGOs are in place, CEPF may support them in varying forms of capacity-building, including communications, understanding relevant laws, organizing policy interventions, natural resource planning and implementation, anti-poaching measures, forest inventory systems, and wildlife census methods.

Build alliances among conservation-minded groups in civil society and the private sector

In order to achieve political influence in the face of the overwhelming odds against forest resource conservation in Sumatra, it will be important for CEPF to support NGOs in combining their efforts and forming alliances. Given inherent diversity in needs, geographic priorities, ethnic background, and other factors, NGOs may need specific skills (e.g., facilitation and conflict mitigation) necessary for forming and maintaining coalitions and alliances. It is important that alliance members have means to communicate with one another on a regular basis and to come together for purposes of coordinating activities or political messages andsharing lessons learned.

Assess impact of conservation interventions at district level and below

Given the speed at which Sumatra is losing its natural resources, there is little time for trial and error in conservation investments. It is important, therefore, that CEPF invest in mechanisms that will build on lessons learned, but also carefully evaluate conservation actions, outcomes, and outcomes in a timely fashion. It may be necessary to develop alternative scenarios so that, if planned activities need to be changed quickly, there are contingency plans in place. Therefore, a comprehensive analysis of available data is needed to assess land use, species presence, and conservation threats. At the same time, surveying the attitudes of civil society at regular intervals will be important in understanding their motivations with regard to resource use, tracking changes of attitudes and behaviors over time, and adapting future conservation efforts

accordingly. (It is important to note that these activities are different from the monitoring and evaluation of each grant.)

SUSTAINABILITY

CEPF's entry into Sumatra over the next five years offers several opportunities for leveraging funds. Potential funding partners include the MacArthur Foundation, the Save the Tiger Fund, the U.S. Fish and Wildlife Service, World Wildlife Fund, and perhaps private-sector investors from the oil and gas, pulp and paper, and palm oil industries.

However, sustainability of conservation efforts launched during CEPF's five-year investment in Sumatra will be essential for the long-term conservation of the island's biodiversity. For this reason, it is important that CEPF invest in projects that clearly enlist the support and full participation of people whose economic well-being and stewardship will be essential to the continuation of successful conservation initiatives. In addition, a mechanism for long-term funding of district- and community-level activities is needed to ensure that conservation initiatives do not stop when CEPF funds are no longer available. Therefore, projects associated with all strategic directions which pursue creation of trust funds and other sustainable funding sources or alternative mechanisms of sustainability should receive priority.

CONCLUSION

The needs for biodiversity conservation in Sumatra are arguably some of the most urgent on the planet. However, the needs are too complex, varied, and widespread for any one organization or donor to address in full. Nonetheless, CEPF can be a catalyst for biodiversity conservation by building the capacity of civil society at the local level to advocate and monitor sustainable resource management policies and practices. CEPF investments will encourage political will for the rule of law where resource extraction and conservation are concerned. Filling this niche will require working with grantees who live or work among people best positioned to become effective long-term stewards of Sumatra's most species-rich forest lands.