

Report No. 15124-IND

**REPUBLIC OF INDONESIA**  
**Kerinci Seblat Integrated Conservation and Development**  
**Project**

Project Document  
April 1996

Agriculture Operations Division  
Country Department III  
East Asia and Pacific Region

**CURRENCY EQUIVALENTS**

(As of March 1996)

Currency unit = Rupiah (Rp)

US\$1.00 = Rp 2,331

Rp 1 million = US\$429

SDR 1 = US\$1.47592

**GOVERNMENT OF INDONESIA**

**FISCAL YEAR**

April 1 - March 31

**WEIGHTS AND MEASURES**

Metric System

## ABBREVIATIONS AND ACRONYMS

AMDAL	-	Environmental Impact Assessment ( <i>Analisis Mengenai Dampak Lingkungan</i> )
APBN	-	Central Budget Allocation
APBD	-	Provincial Budget Allocation
BANGDA	-	Department of Regional Development
BANGDES	-	Village Development Agency
BAPPEDA	-	Regional Development Planning Board ( <i>Badan Perencanaan Daerah</i> )
BAPPENAS	-	National Development Planning Agency ( <i>Badan Perencanaan Pembangunan Nasional</i> )
BCPP	-	Biodiversity Conservation Promotions Program
BRI	-	Bank Rakyat Indonesia
Bupati	-	District head
Camat	-	Sub-district Head
CIFOR	-	Centre for International Forestry Research
DG	-	Director General
DUP	-	Proposed Budget Plan
DIP	-	Final Budget Plan
GEF	-	Global Environmental Facility
GIS	-	Geographic Information Systems
GOI	-	Government of Indonesia
HPH	-	Forest Concession ( <i>Hak Pengusaha Hutan</i> )
HTI	-	Industrial Forest Plantations ( <i>Hutan Tanaman Industri</i> )
ICDP	-	Integrated Conservation and Development Project
IDT	-	Presidential Poverty Alleviation Fund ( <i>Inpres Desa Tertinggal</i> )
INPRES	-	Presidential Instruction ( <i>Instruksi Presiden</i> )
INTAG	-	DG of Forest Inventory and Forest use ( <i>Inventarisasi dan Tata Guna Hutan</i> )
IPCC	-	Inter-Provincial Coordination Committee
JGF	-	Japanese Grant Facility
KPKN	-	Office of the State Treasurer ( <i>Kantor Perbendaharaan dan Kas Negara</i> )
KPHP	-	Permanent production forest management units ( <i>Kesatuan Pengusahaan Hutan Produksi</i> )
KSNP	-	Kerinci-Seblat National Park
LEI	-	Indonesian Ecolabelling Institute ( <i>Lembaga Ekolabel Indonesia</i> )
LIPI	-	Indonesian Institute of Sciences ( <i>Lembaga Ilmu Pengetahuan Indonesia</i> )
LKMD	-	Village Community Resilience Institute ( <i>Lembaga Ketahanan Masyarakat Desa</i> )
MoFr	-	Ministry of Forestry
MoHA	-	Ministry of Home Affairs
NGO	-	Non-governmental Organization
PCC	-	Project Coordination Committee
PHPA	-	Directorate General of Forest Protection and Nature Conservation ( <i>Perlindungan Hutan dan Pelestarian Alam</i> )
PIMPRO	-	Project Director/Manager
TGHK	-	Forest Consensus Boundary ( <i>Tata Guna Hutan dan Kesepakatan</i> )
VCA	-	Village Conservation Agreement
WARSI	-	Clearing House for Conservation Information ( <i>Warung Informasi Konservasi</i> )
WWF	-	Worldwide Fund for Nature
ZOPP	-	ZielOrientierteProjektPlanung(Objective oriented project planning)



## **PART I: Project Summary**

## INDONESIA

### Kerinci Seblat Integrated Conservation and Development Project

#### LOAN/GRANT AND PROJECT SUMMARY<sup>1</sup>

<b>Borrower</b>	:	The Republic of Indonesia
<b>Implementing Agency</b>	:	Ministries of Forestry and Home Affairs and local government in the four participating provinces.
<b>Beneficiaries</b>	:	The globally important National Park of Kerinci-Seblat, and people living in the park buffer zones.
<b>Poverty</b>	:	Program of targeted interventions. The villagers living in the Park buffer zone are the beneficiaries, including tribal people (the Kubus), and belong to the poorest sections of society. The project interventions are focussed on arriving at a village conservation agreement which legalizes village access to resources in the Park and buffer zone and providing social benefits, in return for community cooperation in Park protection and conserving biodiversity resources in village lands and forestry concessions.
<b>Loan Amount</b>	:	US\$19.1 million equivalent
<b>Terms</b>	:	Standard variables interest rate for a term of 20 years, including five years of grace for currency pool loans.
<b>Commitment Fee</b>	:	0.75 percent on undisbursed loan balances, beginning 60 days after signing, less any waiver.
<b>Grant Amount</b>	:	GEF Trust Fund Grant of SDR 10.2 million (US\$15.0 million equivalent)
<b>Terms</b>	:	Grant
<b>Financing Plan</b>	:	See table on page 16.
<b>Economic Rate of Return</b>	:	National Park (not applicable); Area/Village Development and Forest Concession Monitoring 16% (63% of total costs).
<b>Map</b>	:	IBRD 27251
<b>Staff Appraisal Report</b>	:	14989-IND
<b>Project ID Number</b>	:	ID-PA-3699/GE003

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<sup>1</sup> D are financing mutually dependant activities and therefore this document is intended to meet both GEF and  
lending requirements.

# 1. PROJECT BACKGROUND

## A. INDONESIA'S BIODIVERSITY RESOURCES

1.1 **Biodiversity Value.** Indonesia is rich in biodiversity. It contains nearly 10 percent of the world's closed tropical forests. It also has extensive coral reefs and more marine coastline than any other tropical country. Although the archipelago represents only 1.3 percent of the earth's land surface, it contains an estimated 25 percent of the world's fish species, 17 percent of all bird species, 16 percent of reptile and amphibian species, 12 percent of mammal species, 10 percent of plant species, and unknown numbers of species of invertebrate animals, fungi, and microorganisms. These habitats and species are now threatened by logging, mining and over fishing, as well as by agricultural development and other competing land uses.

1.2 **Economic Importance.** Indonesia's biological resources are economically important both globally and nationally. Many plant species originated in Indonesia, including cloves, black pepper, sugar cane and several tropical fruits. Indonesians use over 6,000 species of plants and animals. Daily they gather or cultivate these species for food, handicrafts, medicines, fuel and building materials. Some 40 million people directly depend on a wide range of forest and non-forest products for subsistence. Natural ecosystems, and the environmental functions they protect, strongly influence Indonesia's agriculture, forestry, livestock and fisheries which together contributed about 19 percent of GDP in 1993 directly; a significant proportion of industry sector output is also highly dependent on natural resources.

1.3 **Biodiversity Areas.** The biodiversity and natural habitats most at stake for priority in situ conservation are the 49 million hectares (ha) of terrestrial areas, as well as the 30 million ha of marine and littoral habitats, which GOI has identified for conservation by the year 2000. In addition, there are some 65 million ha designated for production forests, which have an equally important share of the biodiversity and natural habitats, particularly the lowland forests. While certain of these lowland forests would therefore also call for conservation, as a priority, most of these areas require sustainable management. Out of the 366 established conservation areas, there are 33 National Parks, covering nearly 8.8 million ha, one of which is Kerinci Seblat, the focus of this project. The Kerinci Seblat National Park (KSNP) spans four provinces in Sumatra covering some 1.3 million ha. The Park and its adjacent forests have been internationally recognized as one of the most important conservation areas in Southeast Asia.<sup>1</sup>

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<sup>1</sup> IUCN Review of the Protected Areas System in the Indomalayan Realm, 1986.

## B. GOVERNMENT STRATEGY AND LEGAL FRAMEWORK

1.4 **Biodiversity Action Plan.** This plan, prepared in 1991/92, is the main policy statement by GOI for Indonesia's biodiversity conservation strategy. The Plan provides a framework for biodiversity conservation during the current five-year Development Plan (REPELITA VI - 1994/5-1998/9) and for the twenty-five Year Development Plan. The main objectives of the Plan are to (a) reduce the loss of terrestrial and marine habitats of primary importance for biodiversity; (b) expand biodiversity data and information to policy makers and the public; and (c) foster the sustainable use of biological resources. The strategy to attain these objectives would be carried out through an integrated process of institutional, policy and legal reform and development coupled with investment through selected projects. The Plan has four components. First, in situ conservation in National Parks, reserves and protection forests; second, in situ conservation outside the protected area network in forests, wetlands and agricultural landscapes; third, in situ conservation of marine and coastal resources; and fourth, ex-situ conservation, including gene and seed banks, preservation of crop varieties, and captive breeding programs. An important prerequisite for the Plan's implementation is an increased participation by the public, particularly by communities living in and adjacent to areas of high biodiversity value. The Plan also provides for local NGOs to play an active role in fostering such participation.

1.5 **The legal framework.** Indonesia has ratified the Convention on Biological Diversity and has an international and legal commitment to both conserve and sustainably use its biodiversity, including the equitable sharing of benefits. One of the main laws regulating in situ biodiversity conservation is Law No. 5/1990 on Living Natural Resources and Their Ecosystems. This law provides the legal basis for the enactment of National Parks and other protected areas and refers to the possibility of sustainable use of living natural resources. It also provides a concept of zoning within these conservation areas (core zone, use zone for recreation and tourism, wilderness zone and traditional management zone). The law is also specific about the buffer zone and describes it as an area outside the conservation area capable of protecting the integrity of the conservation areas by providing natural symbiosis between all forms of life, ensuring sustainable ecological balance and a higher quality of life for the community. However, implementing regulations or models for National Park and buffer zone development have not yet been introduced. Another important law concerns the *Spatial Management Law No. 24 of 1992*. This law intends to combine spatial management with resource utilization and requires that all provinces and districts formulate spatial plans. It also provides for the spatial management of protection areas, including National Parks, and suggests that National Parks of the dimensions of KSNP would justify a separate spatial plan and subsequently be integrated in the provincial spatial plans. While the law addresses general environmental concerns, biodiversity conservation has not been singled out as an issue in its own right nor as a condition for sustaining ecological balance in-and outside a National Park. The subject of land and user rights for people living within the Park and buffer zone is addressed in a number of laws (e.g. Basic Agrarian and Forestry laws). Individual and community rights related to forest lands remain in general a major source of dispute, and in the particular case of KSNP, this is aggravated by the fact that Park boundary for the proposed project, including the delineation of forest/non forest boundary within the buffer zone, has not yet been confirmed in its entirety.

1.6 The strategy taken in Indonesia to manage the conservation areas, including their biodiversity, is through Integrated Conservation and Development Projects (ICDPs). This approach attempts to ensure the conservation of biological diversity by reconciling the management of protected areas with social and economic needs of local people. These projects range from small biosphere reserves with multiple-use area within the boundary of the protected area, to larger projects which link land use plans and regional development initiatives to protected area management. In Indonesia there are currently eight National Parks where ICDP's will be tested.<sup>2</sup> The ICDP approach in Indonesia seeks the systematic devolution of management responsibility to people living around the protected area. This requires a steady decentralization of management authority to local agencies, including the funding of protected areas.

### C. INSTITUTIONAL FRAMEWORK FOR MANAGEMENT OF PROTECTED AREAS

1.7 The designated government authority responsible for the management and stewardship of the protected area system is the Directorate General of Forest Protection and Nature Conservation (PHPA) within the Ministry of Forestry (MoFr). PHPA's mandate covers the planning, designation and management of all protected areas, and the planning and supervision of protection forests. At the provincial level, PHPA is represented by the Natural Resources Sub Regional Office (Sub-Balai *Konservasi Sumber Daya Alam*) under the authority of the provincial forestry department (*Kepala Kanwil Departemen Kehutanan*), headed by a representative of the Minister of Forestry. In addition there are regional representatives of the DG PHPA called *Balai KSDA* covering several provinces with sub-offices in each province. Most National Parks are managed by a special body, the National Park Office or Management Unit, headed by a director who reports directly to the DG PHPA through the Provincial Forestry office.

1.8 The responsibility for survey and demarcation of protected area boundaries in the field rests with the DG of Forest Inventory and Management (INTAG). The mandate for enforcement of protected area legislation is with PHPA in cooperation with local law enforcement agencies. The area bordering the protected area -- the buffer zone--is managed by provincial and district authorities. The key person is the Bupati, the head of the district (Kabupaten), who is responsible for coordinating and managing all government activities in the district. He is assisted in his task by the provincial planning board (BAPPEDA II) who plays a key role in coordinating, planning, advising and monitoring development programs and the (Dinas) technical agencies that implement sectoral programs. For the past several years the National Planning Agency (BAPPENAS) with the Ministry of Forestry has convened a national forum to coordinate agency planning and development activities in areas surrounding National Parks. Other institutions that have responsibility for managing biodiversity include: Ministry of Environment, Agriculture, Home Affairs, and the Indonesian Institute of Science (LIPI). There are several institutional and policy constraints facing GOI as it attempts to implement its protected areas conservation strategy. PHPA and other institutions with responsibility for biodiversity conservation suffer from an acute lack of trained and dynamic staff, frequent transfer of experienced staff, and a lack of adequate funding. Coordination between the

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<sup>2</sup> The eight national parks include Gunung Leuser, Kerinci Seblat, Gede-Pangrango, Halimun, Bromo-Tengger Semeru, Kutai, Dumoga-Bone and Lore Lindu.

forestry agencies and the regional governments in the management and enforcement of rules and regulations in and around protected areas is often totally lacking. This situation is exacerbated by the lack of effective incentives for local governments and smallholders to protect habitat and biodiversity, and of integrated management plans that link management of protected areas with district or provincial development plans.

#### D. KERINCI SEBLAT NATIONAL PARK'S SETTING

1.9 The KSNP is the largest conservation area in Sumatra, straddling the four provinces of West Sumatra, Jambi, Bengkulu, and South Sumatra (see map). With an area of about 1.3 million ha the Park is one of the largest conservation areas in South East Asia. Based on extensive field surveys by FAO and PHPA the Park was nominated in 1982 by the Minister of Forestry as a National Park. However, it is only now that MOFr is preparing the final text of the decree that will formally gazette Kerinci Seblat as a National Park. The Park boundary demarcation process is nearly completed and most boundaries adjoining settlements have been demarcated but not yet agreed upon by all stakeholders. There are some 450 villages in the nine districts which share common boundaries with the Park. The population of the sub-districts closest to the Park is approximately 1.75 million. In some villages, the boundary demarcation is under review, as some of their agricultural land has fallen within the Park. The project will focus on these villages in the area/village component. There is considerable ethnic variation between the villages and some evidence of nomadic Kubu people (Orang Rimba) entering the Park buffer zone to hunt.

1.10 The Park and its environs encompass a spectrum of habitats from species-rich lowland forests through hill forests and unique highland wetland systems to montane forests and subalpine habitats on Sumatra's highest mountain. The Park is remarkable for its species richness with more than 4000 plants (1/60 of the world total), 180 birds (1/50 of all birds), including at least 14 of the 20 Sumatran mainland endemics, and 144 mammals (73 percent of the Sumatran mammal fauna and 1/30 of the world total, including five island endemics). Many of the habitats and species protected within the Park and its immediate forest buffer zone are poorly represented or absent from other conservation areas in Sumatra or elsewhere in Asia. This area harbors some of the last viable populations of endangered mammals such as the endemic Sumatran hare *Nesolagus netscheri*, Sumatran rhinoceros *Dicerorhinus sumatrensis*, Sumatran tiger *Panthera tigris sumatrensis*, clouded leopard *Neofelis nebulosa*, Malay tapir *Tapirus indicus* and Asian elephants *Elephas maximus*. Many of the large predators and forest herbivores require large areas of lowland forests and other natural habitats to protect their home ranges and ensure access to vital mineral-licks. The high biodiversity value of the Park and surrounding forests is a result of both the area's large size and wide range of habitats and is dependent on the long-term protection of an adequate continuum of habitats from lowland forests to subalpine montane systems. The integrity of the Park and its high biodiversity values are threatened by encroachment from shifting cultivation and cinnamon plantations, forest logging, mining, commercial plantations and road development.

1.11 There are twelve forest concessions (HPHs) bordering the Park (see map). These HPHs total some one million ha and provide potentially an important buffer zone habitat for biodiversity conservation. In 1985 over 200,000 ha of lowland and hill forest were transferred from the proposed Park mainly to benefit the logging concessions in Jambi. The HPH areas are based on a thirty-five

year logging cycle, but the actual leases for the concessions to private logging companies are for twenty years. The precise location of the concession boundaries are difficult to determine given the large areas concerned and the nature of the terrain. This can quite easily lead to logging operations taking place in protected or other conservation forest areas. While the legal framework covering forest exploitation seems to be adequate, supervision of logging plans and operations by the responsible provincial forest service is inadequate so that the implementation and enforcement of appropriate logging practices is generally poor, threatening biodiversity and affecting watershed management.

1.12 Apart from being surrounded by estate crop areas and transmigration settlements, KSNP also has a number of gold and coal mining concessions straddling the Park. Most of the small concessions belong to domestic companies; the fewer but bigger ones are owned by Indonesian-foreign joint ventures. Most operations are in the exploration stage with the smaller ones not very active due to lack of capital. No economically mineable resources have so far been revealed in the Park and together with the fact that existing laws and regulations are generally putting limitations on mining activities in gazetted National Parks, it is believed that mining operations on the Kerinci Seblat Park and its environment will be limited and controlled.

## 2. BANK/GEF INVOLVEMENT AND LESSONS LEARNED

### A. LESSONS LEARNED FROM PREVIOUS GEF AND BANK OPERATIONS

2.1 The Global Environment Facility (GEF) has supported two biodiversity conservation initiatives in Indonesia: the Biodiversity Collections Project (US\$7.2 million) and the Conservation Strategies for Rhinos in Southeast Asia Project (US\$2.0 million). An amount of US\$1.56 million from the GEF/UNDP Pre-Investment Facility (PRIF) was approved to finance preparation of the Biodiversity Collections Project, Kerinci Seblat ICDP and a Conservation Awareness Program. Project implementation under the Bank managed Biodiversity Collections Project is proceeding well, with technical advisors recruited and workshop and key planning/consultation activities well underway. The UNDP managed South East Asia Rhinos Project will develop organized and trained rhino protection units in KSNP to assist in anti-poaching and community outreach programs. As both operations are newly launched it is too early to draw applicable lessons for KSNP.

2.2 Over the period 1988-1995, the Bank committed a total of US\$731 million of its own resources and resources it administers on behalf of the international development community to 84 projects or project components with explicit objectives for biodiversity conservation in 51 countries around the world<sup>3</sup>. Bank support to parks and protected areas has grown rapidly over the last five years. The Bank's IBRD/IDA portfolio of biodiversity related activities has included some twenty-seven projects with a total loan/credit value of US\$287 million equivalent between FY92-95. In addition, the Bank (as GEF implementing agency) has worked closely with local project sponsors on thirty one biodiversity programs, for which the GEF Participants/Council have allocated US\$244 million between FY92-95. In an independent evaluation of the GEF pilot phase (11/93), the assessment of some thirty UNDP/WB biodiversity projects showed that: (a) too little consideration had been given to local people, their expertise and priorities, and the need to engage and empower local communities, NGOs and other stakeholders in designing and implementing projects; (b) NGO involvement was found to be inadequate; (c) long-term financing of such projects was sometimes doubtful; and (d) the need to monitor and evaluate arrangements in projects and adopt an action-learning approach with the flexibility to adapt project activities to take account of lessons learned during implementation. Similar observations are found in the 1991 OED analysis of forestry and conservation lending, which also concluded that: (a) realistic incentives are needed for conservation activities, and (b) conservation and buffer zone management components should be based on a clear prioritization of areas and a realistic plan for related rural development activities targeted to nearby populations.

2.3 In Indonesia, the Bank has supported investment in management and infrastructure development in twelve National Parks in Indonesia through the Forestry Institutions and Conservation Projects I & II. These projects have revealed PHPA institutional weaknesses which KSNP will also have to face, namely, frequent movement of senior staff, moratorium of recruiting new guard staff with low educational qualifications, lack of incentives for technicians and guards to

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<sup>3</sup> Mainstreaming Biodiversity in Development: A World Bank Assistance Strategy for Implementing the Convention on Biological Diversity, ESD, October 1995.

perform their assigned tasks, and overemphasis on blueprints and planning rather than learning by trying and doing. More generally, experience with the Bank's portfolio in Indonesia has highlighted difficulties associated with: (a) inter-agency coordination; and (b) timely appointment of consultants and their effective interaction with government staff. The proposed project will address these difficulties by building on some very positive experiences gained from WWF and WARSI (a group of local NGOs) involvement in community participation and village development around Kerinci Seblat. The approach will be a rebalancing of responsibilities toward decentralized government agencies, NGOs, and local communities. Project design has built on the lessons learned from conservation project experience in Indonesia and elsewhere. The principal lesson is that projects which have focused on purely biological and ecological concerns, and have attempted to insulate the project site from surrounding economic and social pressures, have often failed. This project recognizes that protection of the biodiversity assets of this large and populous area can only be achieved through significant change in social and economic factors affecting the lives of people who live and work in the Park, and its surrounding areas.

#### **B. RATIONALE FOR GEF/BANK FINANCING AND CONSISTENCY WITH COUNTRY ASSISTANCE STRATEGY AND ECONOMIC & SECTOR WORK**

2.4 The proposed project is fully consistent with the Convention on Biological Diversity and guidance from the Conference of the Parties. It has been identified as a national priority in the Biodiversity Action Plan (see para 1.4) and proposed activities will: strengthen conservation, management and sustainable use of ecosystems and habitats (including threatened lowland and hill forests as well as montane habitats); demonstrate innovative measures (linking conservation and district development) to conserve biodiversity; and give priority to involvement of local people in Park and natural resource management. KSNP and its surrounding forests can be regarded as one of the last opportunities in Southeast Asia to conserve a diverse and complex mammal predator-prey system. Forestry management to integrate conservation values into forestry practice and maintain permanent forest cover in the Kerinci forest buffer zone will not only effectively increase the conservation estate by maintaining natural habitat beyond Park boundaries, but could provide a model for sustainable forestry throughout Indonesia.

2.5 The proposed Kerinci Seblat ICDP is also consistent with the Bank's Country's Assistance Strategy (CAS) for Indonesia which was discussed by the Board of Executive Directors on March 21, 1995. This strategy projects increased lending for natural resources and conservation management, and focuses on sustainable environmental and natural resource management, targeted poverty reduction, human resource development, and more decentralized and participatory approaches. Assistance will focus on watershed management and conservation, integrated management and conservation of National Parks (both terrestrial and marine), and coral reef rehabilitation and management. The project is a logical progression from the Bank's past support for conservation issues. These include efforts at supporting Park planning and management and the on-going Biodiversity Collections Project which will improve GOI's capacity in biodiversity inventory and monitoring. The proposed Kerinci Seblat ICDP project is viewed by GOI as the demonstration model for future National Park interventions elsewhere in the country, and both GOI and the Bank are heavily committed to its successful implementation. With respect to Economic and Sector work this project follows the recommendations of the Bank study on Conserving Biological Diversity in the Asian Pacific Region (1992) and the Bank Country Study for Indonesia on environment and development (1994).

### 3. THE PROJECT

#### A. PROJECT OBJECTIVES

3.1 **Project Concept.** The project would address the first objective of the Biodiversity Action Plan (in situ conservation of natural habitats para. 1.4) and is largely process oriented. While it would primarily focus on the protection of one of the country's largest National Parks, it would deal with major institutional, policy and development issues whose resolution is vital for the development of an integrated protected area system covering all major terrestrial habitats in Indonesia. It would strengthen PHPA, the main agency responsible for conservation areas. On the developmental side, it would use an integrated conservation and development approach (ICDP) that reconciles Park management with the social and economic needs of the local people and within the framework of some of the development goals set for the four provinces bordering the Park. This requires a steady decentralization of management authority to local agencies and governments. It would aim at finding better modus operandi for local community participation and the use of NGOs in management decision making concerning Park boundary demarcation and land use and buffer zone regulations.

3.2 **Specific Project Objectives.** The overall objective of the project is to secure the biodiversity of KSNP and stop further habitat fragmentation by : (a) improving Park protection and management, including the involvement of local communities; and (b) promoting sustainable management and the maintenance of permanent forest cover in the remaining buffer zone concession areas. The project will develop a model for ICDP which can be applied to other Parks in the Indonesia protected area system (and elsewhere in Asia) to reconcile conservation and regional and district development. The ICDP would follow an integrated two pronged approach to help stabilize the Park boundary and protect biodiversity within the Park and adjacent areas, as well as to enhance the livelihoods of poor households living around the KSNP by providing them with alternative livelihood opportunities consistent with Park conservation objectives. The project design proposes to meet this objective by institutional strengthening in the areas of integrated planning, coordinated implementation and regular monitoring and enforcement at provincial and local levels; building institutional capacity through increased staffing and in-service training; and improving livelihoods through improved resource management and services delivery.

#### B. PROJECT DESIGN AND DESCRIPTION

3.3 The background for project design and components is based on eighteen technical reports (see Annex 14) completed in June 1993 and funded by the GEF/UNDP Pre-Investment Facility (para 2.1). Detailed design followed with funding provided by a Japanese Grant. Community and stakeholder consultation activities have played a major role in project preparation and design. Beginning in 1992, preparation teams have engaged in rapid rural appraisal exercises in boundary villages with the objective of creating village profiles, understanding land use patterns and people-Park interactions, and eliciting stakeholder feedback on ICDP design. Wherever possible, project activities will build on local knowledge and practices that are compatible with biodiversity

conservation and sustainable use of resources in and around KSNP. Annex 2 provides social assessment information particularly relevant to the Park's buffer zone communities. The area/village development component will focus on the target groups identified, most of which belong to the poorer sections of Indonesia's population. Annex 3 provides a summary table of the major consultation activities that have taken place during the preparation phase, including workshops with foreign and local NGOs, affected villagers, and government officials. The proposed project to be implemented over a six-year period will include four major components which are complementary to project objectives: (a) park management; (b) area and village development; (c) integrating biodiversity in forest concession management; and (d) monitoring and evaluation. Supporting activities are: (a) policy and planning; (b) training and community facilitation; (c) promotion of conservation awareness; and (d) studies.

### **Project Components**

3.4 **Park Management** (estimated costs US\$13.4 million). One of the first major project activities will be the preparation and implementation of a management plan, including zonation, for KSNP. The component will strengthen Park protection, management, enforcement and participatory planning through institutional strengthening of Park personnel, training and infrastructure support. It will also support boundary rationalization activities, species inventory, ecological monitoring, socio-economic and other research necessary for Park and buffer zone planning and management. The component will be implemented by a Park director and his staff, supported by technical assistance. More detailed information is provided in Annex 1, with full details in Working Paper 1 of Annex 14. Given the institutional and management constraints facing the Park, a longer time horizon beyond the initial six year project period will be required to implement the strategy to elevate the Park to a fully protected and functioning conservation estate. Accordingly, the Park management strategy is based on short, medium and long-term objectives as follows:

#### **Short-Term (1-2 years):**

- Legal establishment of the Park through formal gazettelement and further boundary rationalization.;
- Mobilization of senior and junior staff, including technical assistance; and
- Set up of management plan, M&E system and training.

#### **Medium-Term (3-12 years):**

- Develop and implement a Park management plan including a comprehensive zoning system;
- Develop and reinforce Park management and protection, including efficient coordination with local government;
- Effective protection for the preservation of viable natural ecosystems and endangered species;
- Improve management of people-Park interactions, particularly with buffer zone local communities; and
- Facilitate human use for recreation and education;

**Long-Term (13-25 years):**

- Regenerate degraded areas;
- Maintain habitats for specific conservation objectives; and
- Focus activities to utilize the Park for recreation, research and tourism.

3.5 **Area/Village Development** (estimated costs US\$25.9 million). The area development component is designed to improve land use planning, land use rights and community resource management in about 134 selected villages in the interaction zone surrounding the Park, including villages adjoining or within logging concessions bordering the Park. It will be based on an iterative participatory development process involving four steps namely: situational assessment, designing village development plans, implementing and monitoring, and review and evaluation leading to a revised design. The main aim of this process is to arrive at a *village conservation agreement* (VCA) which legalizes village access to resources in the Park and its buffer zone (e.g. access to non-timber forest products, intensification of agricultural production systems and community forestry) or social benefits (such as improved marketing and village infrastructure improvements, including processing and storage) and guarantees specified development assistance in return for community cooperation in Park protection and conserving biodiversity resources on village lands. This process, that will require a long preparation and delivery time of up to three years, will be initiated and sustained in each target community by resident project facilitators in collaboration with formal village leaders, traditional and formal village groups. While the target group of resource-poor farmers most dependent on the Park will be the main focus of this activity, the overall village community will necessarily be parties to this consensus VCA. In villages adjoining forest concessions, the component will mainly promote community forestry management. Some key preparatory work in regard to planning and training has already been commenced by WWF and financed by the Japanese grant (para 3.3). Further details of this component are shown in Annex 1 with full details on operation and legal framework given in the Working Papers 2, 3 and 9 in Annex 14.

3.6 Each of the target villages will receive about US\$50,000 as village grants, depending on their needs, for a combination of small-scale infrastructure, agriculture intensification and business/enterprise activities. Much of the budget allocation process will follow the process of "Certification for Development Assistance Budget" (SPABP). The Village Community Resilience Institution (LKMD) and the Discussion Forum of the Area Development Unit (UDKP) at sub-district level will form the key local institutions for implementing the program (see Chart 1). Project assistance provided for the agriculture related activities may consist of community or individually focused activities which are based on a menu of indicative interventions and guiding principles rather than the standard top-down sub-sectoral packages provided by the provincial agricultural service. Activities will be based on areas' potential in terms of natural resources which vary considerably, (altitudes ranging from 0-2000m, climate, topography and in particular the difference between volcanic and podzolic soils). Nevertheless, there will be two generic benefits which will be generated by the project. The first will be related to the poor soils encountered in the podzolic lands used by villages, most of which have a fertility problem which can be improved by large initial

applications of rock phosphate. The other one will be related to genetic and management improvements in the availability of tree crop related stock (e.g. jungle rubber). The technical support team (para. 4.4) would evaluate each of the proposed village activities and productive investments and their recommendations for improvement would be taken into consideration for the implementation of subsequent activities.

3.7 The eligibility criteria associated with the village development investments would be based on: (a) conservation of biodiversity; (b) targeting common interest groups which are most disadvantaged; (c) technical and financial feasibility; social and institutional feasibility; and (d) impact and sustainability. Additional requirements are: (a) public infrastructure investments must be justified by the number of users and the cost per user; (b) village grant and village contributions, including labor, must be sufficient to complete the sub project; and (c) implementation/contractual arrangements must be clear. Assurances were obtained at negotiations that village grants would be made available in accordance with procedures and conditions satisfactory to the Bank.

3.8 **Integrating Biodiversity in Forest Concession Management** (estimated costs US\$2.9 million). The primary objectives of this component are the following:

- establishment of a clear institutional and policy basis for the effective management of forested areas bordering the Park to act as an effective buffer zone for biodiversity;
- identification, monitoring and protection of high biodiversity sites of conservation value within the concessions; and
- linking the management of forest concessions with the overall regional land use priorities supported by the project.

3.9 One of the main activities to be undertaken under this component will be ecological and biodiversity assessments of the logging concession areas with the view for GOI to reallocate forest land to appropriate land use and management regimes as needed in the six logging concessions. This process would also assist in the rationalization of the Park boundary (see paras. 5.12-5.14). Some initial survey work has already commenced through WWF/CIFOR (Center for International Forestry Research) assistance and financed by the Japanese Grant (para 3.3). The intention is that the rapid ecological assessments will be complemented by the longer term KPHP (Permanent Production Forest Management Units) process. The KPHP is a new program instituted by MOFr as a planning mechanism to redefine concession boundaries based on land use, biophysical and social development considerations. As part of this process, areas of high biodiversity or watershed conservation values would be identified so that they can be left as protected forest areas within the concession. The component will also include independent audit contracts to review and monitor forestry logging and conservation practices in some selected forestry concessions around the Park. The audits will be based on standards for forest management, environmental and social performance and contracts will be issued by the Directorate General for Forest Utilization. Further details are described in Annex 1 and in Working Paper 4 of Annex 14.

3.10 **Monitoring and Evaluation (M&E)** (estimated costs US\$3.8 million). M&E is a *support component* which is linked to the project's Park management, area/village development and concession management for biodiversity activities. The M&E is intended to support the planning

and decision-making processes in each of the three intervention components and are key to their effective implementation. The proposed project monitoring activity will support three major planning and resource management functions: (a) technical and financial progress monitoring; (b) impact analysis; and (c) performance evaluation. Specific objectives for each of the three components include the following:

#### Park Management

- to provide appropriate tools for monitoring encroachment, poaching and other development impacts within Park boundaries; and
- to develop monitoring and performance indicators to assess the health and well-being of the Park such as boundary stability, habitat condition, species survival and distribution.

#### Area/Village Development

- to strengthen institutional capabilities for analyzing the impact of rural development activities on the Park; and
- to facilitate the assessment of project effectiveness in enhancing social and economic development for boundary communities.

#### Integrating Biodiversity in Forest Concession Management

- to establish a system for monitoring the integrity of Park and concession boundaries, including the effectiveness of preserving biodiversity; and
- to develop a capability to monitor and evaluate forest management practices within concession areas, including the success of conservation sites within concession boundaries.

Further details are described in Annex 1 and in Working Paper 5 of Annex 14.

#### **Additional Project Activities** (included above but not described).

**3.11 Policy and Planning** (US\$1.7 million). Project interventions in policy and planning will be mainly focused on the improvement of the regulatory guidelines for inter-provincial spatial planning and regional planning practices with the aim to influence the regional economic development of the greater Kerinci Seblat area in taking more "conservation friendly" directions. The project intends to do this through the support of three activities:

- short-term policy and planning support to BAPPENAS and the Ministry of Home Affairs at the central level to incorporate environmental concerns, particularly related to biodiversity conservation, in the regulatory guidelines of regional and spatial planning;
- long-term support to BAPPEDA I and II for provincial and district planning in the four provinces encompassing KSNP, particularly to ensure that KSNP's development will reflect agreed community resource management and conservation priorities; and

- the preparation of a comprehensive land zoning plan for the entire project area which will address inter-provincial development priorities, including forest production, commercial plantations, mining and infrastructure and transportation development, so that the land use zonation and management of the Park and its buffer zone can be endorsed by the four provincial governments. Further details are provided in the preparation report and the regional and spatial planning Working Paper 6 shown in Annex 14 and its costs are mainly included in the area/village development component.

3.12 **Training and Community Facilitation** (US\$6.1 million). Specific training activities have been identified (see Annex 1 and 14) for each component that are necessary for capacity building and successful project implementation (see para. 4.7). The project will assist in designing and conducting a training needs assessment of all involved stakeholders, the implementation of relevant theoretical and practical training programs, contracting of training services, and supervision and monitoring of training impacts. The extension services in the districts will be used in the area/village development component as and when required and will complement the community facilitation process. (See Working Paper 3 in Annex 14).

3.13 **Conservation Awareness** (US\$1.3 million). The Biodiversity Conservation Promotions Program (BCPP) included in the project will play a key role within Park management and rural development activities by disseminating information to people in boundary villages, government agencies and the community at large on the value of the Park for biodiversity, watershed protection, and local development. It will assist in the survey of current awareness levels and attitude, and design multi-media programs aimed at specific target groups, building on local practices and traditions wherever possible. Details of this activity are shown in Annex 9 tables 1.2/3 and in the BCPP Working Paper 7 in Annex 14.

#### **Studies** (US\$0.8 million)

3.14 **Financial Sustainability**. KSNP will require a long-term sustained program of investment and institutional development to achieve its overall goal of conserving biodiversity through integrated buffer zone development. The proposed project would contribute to long-term sustainability through its emphasis on capacity-building and community involvement in project design and implementation. In addition, recurrent costs associated with proposed project activities will be financed by GOI during the project period, reflecting the national commitment to effective operation of KSNP and ICDP activities. The project's fiscal requirements over the long term are not escalating. However, to protect the Park from any possible budget cut, and to ensure financial sustainability beyond the project period, GOI wishes to explore what options would be available for future recurrent cost/investment financing and development assistance for both the Park and buffer zones on an off-budget basis. The study would review the structure by which money could be raised for and spent on protected areas management and come up with an approach to ensure continuity of funding sources, including decentralized funding mechanisms with responsiveness to local conditions as the guiding principles. The study would include also a review of the feasibility and requirements for establishing a trust fund or other financing mechanism. Consequently, during years 1-3 of project implementation, a special study will be commissioned to assess options and make recommendations for future action.

3.15 **Ecotourism.** Tourism could provide a source of revenue towards Park maintenance costs as well as alternative livelihood opportunity for some village communities. At present KSNP offers very little facilities and services to attract any type of ecotourism. In addition, experience from other tropical forest habitats in Asia suggest that ecotourism potential is limited, unless it is accompanied by other attractions. This need for additional attractions would be considered in the framework of the preparation of the spatial plan (para. 4.3). At the same time the project, with additional support from technical assistance provided for under the Park management component, would undertake a study to assess the potentials and constraints for KSNP to become an ecotourism site. If a real potential would exist for KSNP and depending on the type of ecotourist (e.g. budget and time available) the study would also outline how the ecotourism would have to be organized and managed, including the roles of the local people, government and the private sector.

3.16 **Kubu Assistance Plan.** The Kubu or Orang Rimba (people of the forest) have a tradition of nomadic rain forest foraging, the only traditional hunter-gatherers to be found on mainland Sumatra. They generally are distributed outside the Park throughout the Batang Hari and Musi drainage basins but they have begun to venture into the KSNP buffer zone, particularly in or near the forest concessions because of the continuing depletion of their traditional forest resources. While the Kubus' livelihood is mainly derived from a combination of swidden cultivation, harvesting non-timber forest products and hunting and trapping, the overall depletion of resources has also led to an increase in commercial hunting and trapping of many rare and threatened animals in and around Kerinci Seblat because of lucrative prices paid by middlemen. The information on the Kubu and possible development actions are described in Working Paper 8 of Annex 14.

3.17 Preliminary surveys indicate that there may be as few as two to three families to as many as several hundred Orang Rimba living in the buffer zone of the Park. While the Kubu are not likely to suffer any adverse effects from the proposed project other than that the project will enforce standard legal provisions against poaching of wildlife (especially endangered wildlife) for commercial purposes, the project will review the actual Kubu dependence on buffer zone and KSNP resources and based on this impact assessment will prepare, if required, a plan which will propose measures to continue the continued access of the Kubus to natural resources vital to their subsistence and livelihood in a manner to be acceptable to them, but within the constraints of a sustainable management of KSNP and its buffer zone. If deemed necessary selected pilot activities among Kubu groups, possibly in the field of health improvements and education, would be initiated under the project.

3.18 Because of the Kubus' highly mobile nature and their tendency to range in small groups over an enormous territory, it appears that a two step approach may be the most appropriate means to further assist them. The first step would include a 2-3 year review process carried out by the project and mainly dealing with:

- establishing and training of a small multidisciplinary team consisting of both NGO and government to effectively communicate with the Kubu and act as interlocutors between the Kubu and the district and provincial government officials;
- the collection by the team of more basic baseline information on what-where Kubu presence, and dependence on resources in buffer zone and Park, including ecological and socio-economic impact assessments;

- determining Kubu livelihood and resource needs through an action plan in the event that partial or full restrictions on resource utilization or access exist for the Kubu in the Park and buffer zones;

Assurances were obtained at negotiations that (a) not later than September 30, 1998, the results of the baseline study and impact assessment would be sent to the Bank for comments; (b) based on the results of the study and of the assessment, and taking into account the KSNP management plan, the land zoning plan for the project area, and the comments of the Bank on the baseline study and impact assessment, prepare, not later than June 1, 1999, an action plan designed to ensure that the Orang Rimba do not suffer adverse effects as a result of the implementation of the above plans; and (c) promptly thereafter, carry out such action plan in a manner satisfactory to the Bank.

### C. PROJECT COSTS AND FINANCING

3.19 The total cost of the project, summarized in Table 3.1, is estimated at US\$46.0 million (Rp.103.6 billion equivalent), inclusive of taxes and duties in the amount of US\$3.7 million (Rp.10.1 billion). Foreign exchange costs amount to about US\$9.4 million or 20 percent of total costs. Physical contingencies are based on an average amount of 5 percent for goods and services, except for village allocations which are excluded from physical contingencies due to their programmatic nature. Price contingencies reflect foreign inflation of 2.4 percent per annum and local inflation of 8.7 percent per annum throughout the project period. The local inflation rate has been adjusted to take account of expected dollar appreciation against the Rupiah since most costs are dollar-based. Total contingencies are estimated at US\$5.0 million or 11 percent of total costs. Further details of project costs are presented in Annex 9.

**Table 3.1 PROJECT COST SUMMARY**

	(Rupiah Million)			(US\$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
1. Park Management	17,910.7	8,934.4	26,845.1	7,971.6	3,976.5	11,948.1	33	29
2. Area/Village Development	45,460.1	6,326.9	51,787.0	20,233.2	2,816.0	23,049.2	12	56
3. Concession Biodiversity Assessment	4,428.3	1,359.2	5,787.5	1,970.9	605.0	2,575.9	23	6
4. Monitoring & Evaluation	5,194.2	2,543.5	7,737.7	2,311.8	1,132.1	3,443.9	33	8
<b>Total Baseline Costs</b>	<b>72,993.2</b>	<b>19,164.1</b>	<b>92,157.3</b>	<b>32,487.6</b>	<b>8,529.5</b>	<b>41,017.1</b>	<b>21</b>	<b>100</b>
Physical Contingencies	1,957.7	341.2	2,298.8	871.3	151.8	1,023.2	25	2
Price Contingencies <sup>1a</sup>	7,585.1	1,576.1	9,161.3	3,254.0	676.2	3,930.2	17	10
<b>Total Project Costs</b>	<b>82,536.1</b>	<b>21,081.4</b>	<b>103,617.4</b>	<b>36,612.9</b>	<b>9,357.5</b>	<b>45,970.4</b>	<b>20</b>	<b>112</b>

<sup>1a</sup> Price contingencies are converted at the current exchange rate.

3.20 The financing plan in Table 3.2 presents the GEF, Bank and GOI contribution over the six year project period. The Bank Loan of US\$19.1 million equivalent, combined with a GEF Grant of SDR 10.2 million, would finance about 74 percent of project costs or 81 % of project costs exclusive of taxes, duties, vehicles and fertilizers which would be purchased by GOI. The GEF grant would finance the incremental costs of the proposed project to conserve the unique global biodiversity in the KSNP, and would be targeted to elements of the project that contribute wholly or largely to

achievement of global biodiversity objectives (47 percent of total foreign costs and 32 percent of local costs). The detailed incremental cost analysis (with information on the costs of the baseline scenario and GEF alternative) is presented in Annex 12. The proposed Bank loan would finance 38 percent of foreign costs and about 47 percent of local costs. The balance of project costs, covering 15 percent of foreign costs and 20 percent of local costs, or a total of US\$11.8 million equivalent, including taxes, would be financed by GOI.

**Table 3.2 COMPONENTS BY FINANCIERS**  
(US\$ '000)

	GOI	GEF	IBRD	Total	Foreign	Local	Duties &
	Amount	Amount	Amount	Amount	Exch.	(Excl. Taxes)	Taxes
1. Park Management	4,937.2	8,505.4	-	13,442.6	4,343.3	8,294.1	805.1
2. Area/Village Development /a	4,696.3	4,565.9	16,601.6	25,863.8	3,097.4	20,543.8	2,222.6
3. Concession Biodiversity Assessment	1,612.1	1,240.2	-	2,852.3	670.2	1,893.7	288.4
4. Monitoring & Evaluation	558.9	709.4	2,543.6	3,811.8	1,246.7	2,180.5	384.7
<b>TOTAL DISBURSEMENTS</b>	<b>11,804.4</b>	<b>15,020.9</b>	<b>19,145.2</b>	<b>45,970.4</b>	<b>9,357.5</b>	<b>32,912.1</b>	<b>3,700.8</b>

/a This component is implemented in villages next to the Park boundary

## 4. PROJECT IMPLEMENTATION

### A. PROJECT ORGANIZATION AND MANAGEMENT

4.1 The overall organization of the project is shown in Chart 1. The three main interventions, i.e. Park management, area/village development and concession management for biodiversity would each be managed by a project manager (PIMPRO) responsible for contracting services, implementing activities and preparing reports. The PIMPRO for the **Park Management component** will be appointed by the DG PHPA and be responsible to the KSNP Park manager and be based in Park headquarters in Sungai Penuh (see map). The Park manager will be supported by a project-financed Technical Advisory Group and a Management Support Unit which will assist him with annual planning, financial management, monitoring and reporting. Staff of the Forestry Ministry's provincial offices (Kanwil Kehutanan) in Jambi and Bengkulu will be assigned as PIMPROs for the **Concession Management for Biodiversity component**. They will be responsible for activity implementation, and report directly through the Kanwil's office to the Project Management Committee (PMC). Field activities will be under the supervision of the Dinas Kehutanan TK II in the Kabupaten which have concession areas identified for project activities. In line with the further devolution of responsibility for local development planning and implementation and in support of the KSNP management program, implementation of the **Area/Village Development component** will be devolved to organized village community groups through the LKMD. These village groups will be assisted by resident facilitators and the visiting TA team working in coordination with sub-district extension workers to plan and implement the component activities. The planning and implementation of village infrastructure investments will follow the general guidelines outlined in the technical manual prepared for the Village Infrastructure Project (Ln. 3888-IND). The component will be coordinated in each of the Kabupatens by a district committee chaired by the head of BAPPEDA TK II with a PIMPRO pointed from the same office as the secretary. A similar Provincial Coordinating Committee chaired by the BAPPEDA TK I with the PIMPRO TK I as secretary will ensure district project plans are incorporated into the improved provincial spatial plans being prepared with assistance from the project planners. The Park director will take overall responsibility for the development and implementation of the **Monitoring and Evaluation System**. His office will establish a "base" for the information system. Each of the agencies responsible for implementing components (BAPPEDAS and Kanwils Kehutanan) will be strengthened with a "subset" of the overall project monitoring system.

4.2 The inter-provincial project coordination will be achieved through an Inter-Provincial Coordinating Committee (IPCC) with membership incorporating all project PIMPROs drawn from the BAPPEDAS in each participating province and district and from the Forestry Ministry's provincial offices. The IPCC will be responsible for ensuring that the Park management plan and the various district and provincial plans are coordinated into an overall land zoning plan for the Park and surrounding areas, and that the annual series of planned activities and budget proposals are integrated and consistent with other component objectives and overall project goals. The chairmanship of the IPCC will rotate through the four provinces and will be serviced by a project secretariat maintained by each province. Meetings will be chaired by the Head BAPPEDA TK I of the host province while the Park manager will be the committee's permanent secretary. In addition,

there is an overall National Steering Committee covering all ICDPs, chaired by the National Planning Board (BAPPENAS), with members representing the Ministries of Finance, Home Affairs, Agriculture, Forestry, National Land Agency, the four Governors, the Indonesian Institute of Sciences and representatives of national environmental NGOs. A working group will be attached to this Committee to review project performance and deal with policies, laws and regulations, particularly those "perverse" incentives that discourage conservation.

4.3 The "greater" KSNP land zoning plan (para 3.11) should be completed by September 30, 1998, including recommendations for the long-term management plan for KSNP. Assurances to this effect were obtained at negotiations. It is intended as a tool to get the four provinces to endorse the final zonation plan for KSNP and its surrounding districts, including commitment to what the plan deems necessary for the further integration of biodiversity conservation and development in and around the Park. Particularly the environmental, land use (e.g. roads and mining) and socio-economic impact implications of KSNP have to be addressed and inter-provincial issues need to be resolved. Assurances were also obtained at negotiations that GOI not later than June 1, 1999, would review the land zoning plan for the project area, and, thereafter, carry out the recommendations of such review, taking into account the comments of the Bank. Both the IPCC as well as the national steering committee will review the 'greater' KSNP land zoning plan, in time for the project's Mid-Term-Review.

4.4 **Technical Assistance (TA)** The project involves the introduction of many new conservation techniques and processes that are still not very well known in Indonesia. To ensure effective technology and managerial transfer and train and build institutional capacity, the project has included some 1,300 staff-months of short and long-term local and foreign experts, including NGOs. About 82 percent of the TA is for the support for operational activities and institutional development of which 60 percent is expected to be carried out by local and 40 percent by foreign consultants. The remainder of TA (18 percent) is set aside for studies and research. Details are described in Annex 5. The TA is provided to cover the following main fields:

- (a) Park management and enforcement;
- (b) village land use and development planning and community based implementation;
- (c) regional and spatial planning;
- (d) concession management for biodiversity and inspection audits;
- (e) monitoring and evaluation; and
- (f) studies and research.

4.5 Most experts to be located in Sungai Penuh will provide support to the areas in Jambi and West Sumatra, whereas the TA team to be located in Curup (see map) will provide support to villages and districts in Bengkulu and South Sumatra. Assistance from both local and foreign NGOs will also be provided. Particularly in the village planning and implementation process of the area/village development component, they are one of the most valuable resources for the project. The terms of reference for the key technical assistance assignments are summarized in Annex 14 D.

4.6 **Annual Plan Preparation and Fund Flow.** The Project Managers of the Park Development and Concession Management for Biodiversity components will prepare the annual budget plans (DUPs) and funds will be made available when annual plan proposals have been approved (DIPs) by BAPPENAS and DG BUDGET. Funds released for the Area/Villages Development component will basically conform to the specific grant of DATI II (see Chart 2). The SPABP will go to the PIMPRO in BAPPEDA TK II through KPKN. The PIMPRO will make the request to BRI to finance the village community project. The village community group assisted by the TA team will prepare an annual contract, according to the approved village development plan, with the appropriate district PIMPRO. The annual village development contract would be approved by the Camat before submission to the PIMPRO. The village community group will receive funds from BRI Unit Desa at Kecamatan to meet the expenditures. The PIMPRO accounts for BRI's expenditures incurred on the basis of the PIMPRO's request to KPKN to replenishment to BRI. This replenishment to BRI, being reimbursement of expenditures incurred, is paid from the Special Account. The leaders of each community group will be assisted by the accountant from the village development council (LKMD) to manage and account for the funds released to them. They will also be supervised and trained by the facilitators and the TA team. The annual work-plan will be prepared by the Kabupaten PIMPROs of the area/village development component, based on participatory planning at the village-level to produce project proposals. These proposals will be screened by the Kabupaten and Provincial Guidance teams before they are forwarded to BAPPENAS and DG BUDGET.

4.7 **Training.** The overall objective of project-related training is to develop skills and institutional capacity to implement ICDP activities by implementing agencies. Training plays a large part in the Park management component, where the focus is on building Park management skills, community awareness and extension skills and familiarizing Park staff and communities of the biodiversity within KSNP. In the area/village development component the focus is primarily in improving integration between biodiversity conservation and rural development through integrated planning and community-based program planning exercises. Training will also focus on improved biodiversity monitoring and development impact specifically through training of forestry personnel in concession audit techniques. Table 4.1 illustrates the different types of training to be financed through the project. The project proposes to deliver nearly 802 staff-months of training through short-courses at the provincial, district, and sub-district level. In addition, the project will support four Park management staff to attend overseas short training course on Park Management, and seven staff to visit Malaysian National Parks on working visits to learn ICDP management techniques being implemented in Kota Kinabalu National Park. PHPA staff will also visit other National Parks currently implementing ICDP types of projects within Indonesia. Prior to implementing training activities, each component will first conduct a training needs assessment.

**Table 4.1 Proposed Training Interventions (staff-months)**

Component	PY1	PY2	PY3	PY4	PY5	PY6	TOTAL
<u>Park Management</u>							
Field Staff	1.5	6.5	6.5	6.5	6.5	6.5	34
Short-Courses (overseas)		2	2	3	-	-	7
Working-Visits		1.5	1.5	-	-	-	3
Traveling Seminars	34	34	34	34	34	34	204
District workshops	5	5	5	5	5	5	<u>30</u>
Extension Training							282
<u>Area/Village Dev.</u>							
Project Manager training		1.5	1.5				3
Planners training		2.5	2.5				5
Extension worker training		7	17.5	10.5			35
Community organizer training		35	52.5	70	52.5		210
ZOPP meetings		3.5	3.5	3.5	3.5		<u>14</u>
							267
<u>Concession Biodiversity Assessment</u>							
Traineeships	10	20	20	20	20	10	100
<u>Monitoring &amp; Eval.</u>							
M&E staff training	18	18					36
Decision-makers training	4.5	4.5					9
Planner's GIS training	50	58					<u>108</u>
							153

## B. IMPLEMENTATION PLAN

**4.8 Implementation Schedule** The project will be implemented over six years. A project implementation schedule, showing the key events of project implementation for the first two years has been prepared. Details are summarized in Annex 6. In general there are three key steps for project start-up implementation:

- (a) the preparation of the decrees (Surat Keputusan-SK) concerning the appointments of the PIMPROs, coordinating teams/committees and 1996/7 budgets, which have to be prepared by GOI;
- (b) the preparation and processing of procurement of the project's technical assistance program so that the TA and NGO teams can be mobilized immediately; and
- (c) the completion of Park boundary demarcation.

4.9 With respect to the **Park Management component**, little project action can be expected before the appointment by the Secretary DG PPHA of the senior Park staff. Assurances were obtained at negotiations that not later than August 1, 1996 a KSNP project management unit, with competent staff and in adequate numbers, would be established and thereafter be maintained until project completion. Concerning the **Area/Village Development component** it would be important to have the resident village facilitators (pendamping) for the first ten villages selected, trained and in place by July 1996. The meeting of this deadline is possible as the training and pre-planning activities for the ten villages by WWF were started in November 1995, with funds provided by the Japanese Grant (para. 3.3). With respect to the **Concession Management for Biodiversity component**, there is a need to commence the rapid ecological assessments in the concession forthwith so that biodiversity management zones in the concessions and along the Park boundary can be identified (see para. 5.12).

4.10 During appraisal a list of draft monitoring and performance indicators to be used over the life of the project was developed and which should be finalized during the first year of implementation once key staff are in place and key TA personnel are mobilized. The Project's supervision requirements are summarized in Annex 7. While the project would carry out yearly reviews on progress and if required, would make appropriate adjustments during the project cycle, a MTR will be completed by March 1, 1999. The MTR report would be prepared under terms of reference satisfactory to the Bank. The MTR will review project effectiveness in meeting ICDP goals and in stabilizing Park boundaries and reducing biodiversity loss. It will also be used for making appropriate technology and institutional adjustments in project design if required, including follow-up actions for the "greater" KSNP land zoning plan (para. 4.3) and Kubu action plan (para. 3.18). The MTR report will be reviewed with the Bank by June 1, 1999 and thereafter GOI would take all measures to ensure the efficient completion of the project based on the conclusions and recommendations of the MTR report, and taking into account the views of the Bank. A project completion report would be prepared by the Ministry of Forestry on the basis of Bank guidelines within six months of the closing date of the loan and grant. Assurances regarding the above were obtained at negotiations.

### C. PROCUREMENT

4.11 The procurement arrangements are summarized in Table 4.1 and reviewed below. Goods and Works would be procured in accordance with the provisions of the "Guidelines for the Procurement under IBRD Loans and IDA Credits", dated January, 1995, and revised in January, 1996. The DG of Forest Protection and Nature Conservation (MoFr) will be responsible for coordinating the procurement activities related to the Park Management component, the DG for

- (a) the preparation of the decrees (Surat Keputusan-SK) concerning the appointments of the PIMPROs, coordinating teams/committees and 1996/7 budgets, which have to be prepared by GOI;
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Forest Utilization (MoFr) will do so for the Concession Management for Biodiversity component and the DG of Regional Development (BANGDA) in MoHA will be responsible for the Area/Village Development and M&E components. Since the consulting services required for this project are quite large and interrelated between the various components it will be BAPPENAS who will coordinate the initial procurement process of these services. GOI would finance purchases of vehicles and fertilizer from its own resources because under GOI procurement rules these items are not open for international competitive bidding. Assurances were obtained at negotiations that such a procurement will be in accordance with schedules agreed with the Bank.

**Table 4.2 PROCUREMENT ARRANGEMENTS**  
(US\$ '000)

	Procurement Method				Total
	National Competitive Bidding	Other /a	Consulting Services	N.B.F /b	
<b>A. Civil Works</b>					
Buildings and Structures	2,314.3 [1,388.6]	-	-	-	2,314.3 [1,388.6]
Village Infrastructure	-	5,761.2 (4,609.0)	-	-	5,761.2 (4,609.0)
<b>B. Equipment, Furniture.</b>					
Office/Field equipment & Furniture/c	633.7 (188.1) [318.7]	66.1 (5.6) [47.2]	-	-	699.8 (193.7) [365.9]
Aerial photography	604.5 (483.6)	-	-	-	604.5 (483.6)
Remote Sensing Equipment	-	47.4 (37.9)	-	-	47.4 (37.9)
<b>C. Vehicles</b>	-	-	-	986.8	986.8
<b>D. Training</b>	-	3,084.8 (1,127.5) [1,523.3]	-	288.8	3,373.5 (1,127.5) [1,523.3]
<b>E. Consultant Services</b>	-	-	12,723.0 (4,907.4) [6,572.2]	144.2	12,867.1 (4,907.4) [6,572.2]
<b>F. Studies</b>	-	-	825.5 (743.0)	-	825.5 (743.0)
<b>G. Survey and Research</b>	-	-	4,579.1 (1,022.8) [3,098.3]	-	4,579.1 (1,022.8) [3,098.3]
<b>H.. Extension &amp; Planning</b>	-	6,127.0 (4,050.3) [1,346.4]	-	-	6,127.0 (4,050.3) [1,346.4]
<b>I. Agricultural and Other Inputs /d</b>	-	1,453.8 (1,163.0)	-	-	1,453.8 (1,163.0)
<b>J. Incremental Operational Costs</b>	-	-	1,703.4 (806.9) [726.2]	4,278.8	5,982.2 (806.9) [726.2]
<b>TOTAL</b>	3,552.5 (671.6) [1,707.3]	16,540.2 (10,993.4) [2,916.9]	19,831.0 (7,480.1) [10,396.8]	6,046.7	45,970.4 (19,145.2) [15,020.9]

Note: Figures in ( ) and [ ] are the amounts financed by IBRD and GEF respectively.

\a Includes national shopping, direct contracting and community participation works, simplified procurement procedures for small work and training.

\b NBF - Not Bank Financed

\c Amount less than \$200,00 per contract.

\d Including inputs for village enterprises, but excluding fertilizers.

4.12 **Civil works (US\$8.1 million)** would comprise buildings and village infrastructure. The works for small offices and other buildings would involve small contracts over scattered areas which would not attract foreign bidders. These works would be procured following national competitive bidding procedures (NCB) acceptable to the Bank. Civil works for village infrastructure (US\$5.8 million) would be small sub-projects between US\$10,000-40,000 in often very remote areas. These works would be carried out mostly by the LKMDs by direct village labor (community participation) or by lump-sum, fixed price contracts awarded on the basis of quotations obtained from three qualified domestic contractors in response to a written invitation, with implementation agreements with the Kabupaten Department of Public Works. **Agricultural and other inputs (US\$1.5 million)** would consist of planting materials, labor, small tools, and other goods required by small enterprises. Inputs also include fertilizers valued at about US\$0.07 million and not financed by the Loan/Grant. These inputs would make up the bulk of the farm or community forest treatments and spread over a large number of areas and farms in and around the Park buffer zone. The size of each input would be too small (on average less than US\$15,000) to attract international or national competitive bidders. They would, therefore, be procured under national procedures acceptable to the Bank, mostly through national shopping and with at least three price quotations. **Vehicles (US\$1.0 million)** are considered reserved procurement and would not be financed by the Loan or Grant. **Office and field equipment (US\$1.4 million)** would be mainly for small packages or items below US\$200,000 and be procured under NCB acceptable to the Bank and with at least three price quotations. For small items that cannot be conveniently packaged under NCB in amounts not exceeding US\$20,000 per contract up to an aggregate of US\$70,000, national shopping procedures acceptable to the Bank would be used. Aerial photographs would be procured through NCB procedures acceptable to the Bank as this would be for packages between US\$50,000-100,000 for which capable domestic companies are available and which would be too low to attract interest by international companies. Satellite imagery would, with the Bank's prior agreement, be procured by direct contracting as this would only be available from either Spot or Landsat. **Training (US\$3.4 million)**, of which about US\$0.3 million would not be financed by the Loan/Grant, would be carried out by procedures acceptable to the Bank. **Extension and Planning (US\$6.1 million)** would be procured by national shopping procedures acceptable to the Bank. **Consultancy Services, Studies and Surveys and Research (US\$18.3 million)** would be procured in accordance with the Bank's Guidelines for Use of Consultants. For complex, time-bound assignments, contracts would be based on the standard form of contract for consultants' services issued by the Bank. The project's TA requirements would be coordinated by an independent Project Coordination consultant attached to PHPA but responsible to the KS-ICDP working group of the Project Steering Committee. An NGO as a sole sourced contract would carry out the village participation operations of the area/village development component. It is likely that WWF would be chosen on account of their long involvement with villages in KSNP. The balance of project costs are **Incremental Operational Costs (US\$6.0 million)**, most of which (US\$4.3 million) would not be financed by the loan/Grant. About US\$ 1.7 million would be procured following the Bank's guidelines for the use of consultants.

4.13 **Procurement Review.** All contracts for goods would be grouped into bid packages whenever possible to attract competition and permit bulk purchasing. GOI would use and conform to the Bank's standard Bidding documents i.e. procurement of goods and works, including works for smaller contracts, which would facilitate the tender and contract preparation by the various agencies involved. Civil works' contracts for offices and other buildings, equivalent to US\$500,000, or more, would be subject to the Bank's prior review. Given their small amounts and their large number, the

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need for quick approval and the safeguards in project design (field engineers and other TA will be in place to assist) to supervise the process, the contracts for village infrastructure, except for the first five contracts, would not require prior review. All tender documents and contracts for goods, estimated to cost the equivalent of US\$200,000 or more would be reviewed by the Bank, including the first contract. All contracts for consultants' services, including studies, surveys and research, valued at US\$100,000 or more for engagement of firms and US\$50,000 or more for engagement of individuals would be subject to prior review by the Bank. The exceptions to prior review of contracts for consultants' services would not apply to: (a) the terms of reference for such contracts; (b) single-source selection of consulting firms; (c) assignments of a critical nature, as reasonably determined by the Bank; (d) amendments to contracts for the employment of consulting firms raising the contract value to US\$100,000 equivalent or more; and (e) amendments to contracts for the employment of individual consultants raising the contract value to US\$50,000 or more. This would result in prior review of about 55 percent of all contracts procured. Contracts below the threshold levels would be subject to selective post-review by visiting missions. This review would concentrate, among others, on the competitiveness of prices paid and on the physical inspection of the inputs provided. Assurances were obtained from GOI at negotiations that these procurement arrangements would be followed.

#### D. DISBURSEMENTS

4.14 The Bank loan of US\$19.1 million and a GEF grant of SDR 10.2 million (about US\$15.0 million equivalent) are expected to be disbursed over a six-year period. The period of disbursement is less than the disbursement profile for agricultural projects in Indonesia. However, with the pre-implementation activities now taking place in the buffer zone and a dynamic Park Director already present, it is believed that the targets should be achieved during the project period provided that the technical assistance team can be mobilized promptly. The project loan and grant closing dates are September 30, 2002. The proposed Loan and Grant allocation and a summary of estimated disbursements by year is presented in Annex 10. Disbursements of the Bank loan would be made on the following basis:

- (a) 80% of expenditures for civil works for area/village development;
- (b) 100% of foreign expenditures, 100 % of local expenditures (ex-factory cost) and 65% for other items procured locally for equipment, furniture and mapping materials;
- (c) 80% of expenditures for agricultural and other inputs, excluding fertilizers;
- (d) 60% of expenditures for training;
- (e) 80% of expenditures for planning and extension activities related to buffer zone development;
- (f) 80% of expenditures for technical assistance.;
- (g) 90% of expenditures for studies;

- (h) 30% of expenditures for surveys; and
- (i) 15% of incremental operating expenditures related to the buffer zone.

4.15 Disbursements of the Grant would be made as follows:

- (a) 60% of expenditures for civil works in the Park;
- (b) 100% of foreign expenditures, 100% of local expenditures (ex-factory cost) and 65% for other items procured locally for equipment, furniture and mapping materials;
- (c) 90% and 20% respectively of expenditures for Park and buffer zone related training;
- (d) 80% and 10% respectively of expenditures for planning and extension activities related to Park and buffer zone development;
- (e) 90% and 50% respectively of expenditures for surveys and research related to Park and buffer zone;
- (f) 90% on expenditures for technical assistance related to Park and NGO Services; and 10% for TA related to buffer zone development, excluding NGO Services; and
- (g) 15% for incremental operating expenditures related to the Park.

4.16 For disbursement purposes, full documentation will be required for all contracts at or exceeding the following amounts: (a) for civil works US\$500,000 and the first five contracts related to village infrastructure; (b) for goods US\$200,000 and the first contract of both the loan and the grant; (c) for consulting services' contracts, including studies, surveys and research, with firms US\$100,000; and (d) for consulting services' contracts, including studies, surveys and research, with individuals US\$50,000. For all expenditure in those categories below the limits specified and for expenditures on training, agricultural inputs, extension and planning, and incremental operating expenditures, disbursements will be made on the basis of certified statements of expenditures (SOEs). SOE for village infrastructure works will be supported by progress reports certified by the Camat (head sub-district). This documentation will be available for the required audit and also to Bank supervision missions.

4.17 To expedite disbursements, two Special Accounts would be opened in an amount of US\$1.8 million and US\$1.5 million respectively for the Loan and the Grant by GOI in Bank Indonesia, or at a commercial bank acceptable to the Bank for the purpose of the project. This account should be maintained by the Directorate General of Budget and would be used for all eligible foreign and local currency expenditures. Replenishment to the Special Accounts will be made on a monthly basis, or when 20 percent of the Special Accounts' balance have been used, whichever comes first.

- (h) 30% of expenditures for surveys; and
- (i) 15% of incremental operating expenditures related to the buffer zone.

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- (b) 100% of foreign expenditures, 100% of local expenditures (ex-factory cost) and 65% for other items procured locally for equipment, furniture and mapping materials;
- (c) 90% and 20% respectively of expenditures for Park and buffer zone related training;
- (d) 80% and 10% respectively of expenditures for planning and extension activities related to Park and buffer zone development;
- (e) 90% and 50% respectively of expenditures for surveys and research related to Park and buffer zone;
- (f) 90% on expenditures for technical assistance related to Park and NGO Services; and 10% for TA related to buffer zone development, excluding NGO Services; and
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## E. PROJECT ACCOUNTS, AUDITS, REPORTING AND BANK SUPERVISION

4.18 Separate detailed accounts would be kept by the provincial project and program offices, for each budget under their charge by sub-project and project year. Project accounts are subject to two audits by: (a) the Inspector General of concerned ministries; and (b) the Financial and Development Supervisory Board (BPKP). The work of both auditors has generally been found satisfactory on Bank-assisted projects. Assurances were obtained at negotiations that the project records and accounts, including the Special Account, would be audited for each fiscal year and furnished to the Bank within six months of each Government fiscal year. Such audit would also contain a separate opinion on the SOEs. In addition, all project related contracts, documents related to the SOEs, and orders and receipts, would be kept for at least one year after the Bank has received the audit report for the fiscal year in which the last withdrawal from the loan and or grant account was made. Annual financial audits would include at least 10 percent coverage of randomly selected village infrastructure sub-projects.

4.19 An annual work program outlining the proposed activities and budget would be submitted to the Bank by no later than October 15. The MIS developed and improved under the project would review the reporting mechanisms and update them through to the national level, as well as the BAPPEDA offices at district and provincial levels. Annual progress reports on each separate component will be prepared by the appropriate PIMPRO but with a consolidated project summary prepared by the Park manager (information data base will be located in the Park management office in Sungai Penuh) would be submitted to the Bank no later than June 30 each year and would also elaborate on the constraints and problem solving aspects of the project.

4.20 The above progress reports will also reflect the monitoring of key performance indicators of the various project components. The Performance Indicators (both implementation and impact) for each project component would be finalized during the first year of implementation once key staff are in place and key TA personnel have been mobilized and had time to review and update their work program and TORs. Key indicators are discussed in Annex 8. The project would be supervised according to a supervision plan summarized in Annex 7 and priority would be given during the three launching workshops in the first project year to institutional arrangements (e.g. project coordination), to review first year work program and TORs and to get full agreement on the project indicators among the various project units. While this plan is likely to be modified as the project becomes fully operational, the plan suggests that regular supervision be carried out by RSI, with specialized project reviews to be coordinated by Bank HQ, including the milestone missions. Three milestone supervision missions would have to be undertaken by the Bank and GOI, namely (a) first year launching workshops: project start-up, after TA mobilization, and after end of full implementation year to review project component indicators and to review suggestions for project adjustments; (b) MTR, particularly to review KSNP land zoning plan, including social and environmental impacts and Kubu development follow-up; and (c) implementation completion mission.

## 5. PROJECT IMPACT

5.1 The project would benefit some 1 to 1.5 million people living in the thirty-six sub-districts surrounding the Kerinci Seblat National Park, both directly as a result of specific income generating investments made under the project, and indirectly as a result of improved soil and water quality delivery resulting from better protection of forested areas in and around the Park. The project would generate the following benefits:

- (a) environmental benefits, including protection of unique biodiverse habitats and rare and endemic species native to Kerinci Seblat for current and future generations and improved watershed protection for the four surrounding provinces. More specifically the project would reduce negative environmental impacts of local people on biodiversity and increase a better appreciation of protected areas and the social and economic benefits accruing from conservation. Downstream soil and water impacts of stabilizing the Park area and forest cover in neighboring forest concessions are likely to be significant, given the high density of population and intensity of land use on lowland areas of Sumatra affected by erosion of watersheds;
- (b) socio-economic benefits by improved employment and income generation opportunities for poor households and communities living in Park boundary villages by giving them more control over the long-term management of their resource base, including resolution of land use conflicts. More specifically about 13,400 households, considered to be the poorer sections in the four provinces, would directly benefit from the investment funds availability to the 134 villages communities and some 300,000 households would indirectly benefit through improved biodiversity conservation. The project would ensure participation of women, tribal communities and other disadvantaged people in community decisions about resource distribution and investment selection in both the National Park and buffer zone; and
- (c) the capability of institutions would be enhanced through human resource development, strengthening of sector institutions and policy reform. More specifically the project would improve Park and buffer zone management, through an improved spatial/regional planning process and policy and regulatory framework, including enforcement and a more participatory role of village communities. It would provide an innovative pilot model, which if successful, could be replicated in other conservation areas in Indonesia.

### A. ECONOMIC BENEFITS

5.2 Given the nature of this project, it has been difficult to quantify the benefits. As a result, varying degrees of precision can be attached to estimates made for the various components.

5.3 With respect to the biodiversity value of the Park, the Project Preparation Study (Report 8 on Resource Economics-Annex 14) concluded that "the value of KSNP as a conservation estate is likely to be similar to the opportunity cost (of timber harvest) in the worst case scenario and that there is a potentially large economic gain to be achieved in the best case scenario". The benefits of KSNP investments are very broad, and many of them are also long term. Such benefits can be difficult to estimate directly, particularly because there is not yet a generally accepted method in the environmental economics literature on how to estimate these. In the case of biodiversity and conservation benefits associated with KSNP, the net present value of selected benefits has been estimated ranging from US\$70 to US\$200 million, with the mid-point being US\$135 million. The costs of achieving these can be calculated by adding the direct investment costs involved, to the value of logging benefits foregone in this forested area. In this case these costs were estimated at about US\$93 million.

5.4 At the same time, the investments in Park Management and the planned activities in the buffer zones are a *sine-qua-non* for maintaining the integrity of the Park. Many of the large predators and forest herbivores require large areas of forests for food and to maintain viable populations. This sets a minimum threshold to Park size and, correspondingly, to investment in management and monitoring. Similarly, once the Park area is defined, then stabilization in the entire zone buffering that Park is necessary. It seems that the proposed level of investments of about US\$13.2 million for Park Management and other components of US\$34.0 million form a minimum amount that would safeguard the biodiversity value of the Park. With respect to the cost recovery of these investments and the Park's future recurrent cost financing, since the project's benefits are mainly long-term and indirect in nature, the project will carry out studies to find an effective mechanism to ensure long-term recurrent cost financing of KSNP, particularly since few effective measures presently exist (para. 3.14). It is believed that the fiscal implications of continued Park management beyond the life of this project are not large, and are well within the budgetary capability of GOI to cover.

5.5 With respect to the village infrastructure investments (e.g. upgrading village roads, drinking and irrigation water), employment and cash compensation to village laborers is an important feature of the project. The cash to be earned under the project should provide an important addition to the poorer household budgets. Labor-intensive methods are also efficient for the public budget. Villagers are willing to work for the equivalent of about Rp 4-5,000/day (e.g. share rubber tapper), and at those costs labor intensive methods are competitive with capital intensive methods for the simple type of works envisaged, particularly for the relatively isolated villages in the Park's buffer zone. The villagers have generally to undertake the maintenance of the village facilities. However, having participated in the construction and because it is for their own benefit it is likely they would do the maintenance themselves. Assuming that rural roads increase farmers' income by 10 percent, due to better access to markets in the rainy season, easier access to employment, health and other services outside the village (see: Yogyakarta Upland Development Project; 3305-IND) and using data on buffer zone villages in the KSNP Project gives an economic rate of return for rural roads of 37 percent. With respect to the village development in the Park buffer zone, the communities commitment to Park protection and to improvement of the management of the natural resources they utilize, will to a large extent determine the project's success to meet above objective. Since most of the resource management decisions of these generally isolated villages are motivated by varying combinations of family needs for livelihood, local knowledge and customs, topography and climate, including a wide array of external factors, the interaction with the environment represents

for each of these villages an unique set of resource management and community development opportunities and constraints. Hence, critical decisions into possible changes in village land use and resource management will be made with each target village through a participatory process of planning and implementation. This process would be iterative, flexible and responsive to each community's particular situation and development requirements.

5.6 Individual farmer benefits in newly agreed land use activities to be brought about by the village and Park zonation plans are difficult to quantify. The proposed changes in land use within the Park will be mainly governed by achieving more optimum "conservation" principles, with community benefits as a secondary objective and mainly comprising "security of access to certain subsistence resource uses in the Park". The effectiveness of introducing land use changes in the village buffer zone will mainly depend on the financial attractiveness for the target group compared to the activities it is already engaged in. There is a huge variety of farming systems in the buffer zone determined by a wide variation in plot and farming size, soils (volcanic and podzolic) and soil depth, elevation (0-2,000 m), rainfall (2,000-5,000 mm/year) and proximity of markets and input supplies. The project intends to bring about improved land use changes in these farming systems according to a menu of indicative principles rather than a clearly described menu of packages. Some of the indicative principles are: (a) emphasis on tree crops and existing farming systems; (b) work on factors which improve securing of markets and input supplies (e.g. coffee, cinnamon and rubber have well established market structures; one of the main limiting factors to increased productivity is the small amount of phosphorous available in the podzolic soils); (c) return on labor; and (d) improvement and availability of planting material. At the same time there are clearly highly profitable improvements in certain farming areas, the project could instantly introduce (e.g. in the SE part of the project area where jungle rubber provides the main cash crop and where farmers are less well off, the introduction of improved varieties with either budded stumps or polyclonal seed for remote areas, could more than double the yields).

5.7 As part of project preparation, a study was carried out for various farming systems to calculate the economic rate of return for agriculture investment under the village grants. The ERR for jungle rubber is estimated to be 40 percent, for cassiavera (cinnamon), 60-90 percent, depending on the bark grade and for oil palm, 35 percent. Also, on the basis of incremental benefits for agroforestry on 3,720 ha in the buffer zone, an ERR of 34 percent has been estimated. Additionally, as part of the project preparation study, incremental benefit calculations have been carried out for irrigation intensification. These involve investments in an area of 930 ha spread out over sixty-two villages. The economic rate of return is estimated to be 53 percent. It should be made clear that the benefits of these direct investments in agricultural productivity are incremental to the benefits from investments in infrastructure, discussed in para 5.5.

5.8. The village/area development component is both the largest item of expenditure under the project and the one most directly related to social development and income improvement for communities, in the project area. It accounts for 57 percent of total base costs. Therefore, it is necessary to provide an overall rate of return for this component. Because of the difficulty of estimating specific activity returns, given that both the infrastructure requirements and agriculture

land use options in each village are as yet unknown (para. 3.5), an ERR of 34 percent is considered representative for infrastructure and agriculture without inclusion of all TA and overheads - this being the lower end of the range of returns discussed in paras 5.5-5.7 above. Once all costs of component overheads and associated TA are added in for the village/area development component an ERR of 16 percent for this component results.

**5.9 Sensitivity analysis.** The major risk would consist of an inadequate consultation process with target communities with the result that not all villages would participate in the village conservation agreement process (para 3.5). Assuming that 20 percent of villages would not participate, this would result in an ERR of 13 percent. Other likely scenario would be for the project to be delayed by one year due to delay in NGO and other technical assistance mobilization or for the project to receive reduced incremental benefits, say by 10 percent. These outcomes would correspond to reduced ERRs of 12 percent and 13 percent respectively. This project component is therefore relatively insensitive to these major categories of risks and maintains an acceptable return.

**5.10** In respect to the economic benefits derived from a better monitoring in the forestry concessions bordering the Park, an ERR of some 15 percent has been estimated. This calculation is based on the approach taken in a paper on the economics of sustainable forest management which was presented to GOI in September 1995 and assumes that adequate protection of the regenerating stands produced from project activities can be maintained. The economic calculations prepared for two main project components (area/village development and integrating biodiversity in forest concession management) are given in Annex 13.

## **B. SOCIAL AND ENVIRONMENTAL IMPACTS**

**5.11** The project is expected to have a highly beneficial environmental impact. The main goal of the project is the protection of the approximately 1.3 million ha of the Kerinci Seblat National Park and the surrounding buffer zone. The project has extensive environmental, land use and socio-economic development implications. The major environmental impacts facing the Park, including the proposed mitigation measures are described in a Regional Impact Assessment (RIA) report prepared for BAPPENAS in December 1994 and released by GOI to the Bank on April 20, 1995. A summary analysis is provided in Annex 11. While the project has addressed these issues by including a number of policy, administrative and fiscal responses in the project design (see Working Paper 9, Annex 14) the final understanding with GOI on the more prominent issues will be sought at negotiations. These issues are as follows:

**5.12 Boundary Rationalization and Forest Concessions.** The rationalization of the current Park boundary is critical for the successful development and sustainability of the Park as buffer zone lands are being subjected to serious disturbance from logging and encroachers. Unless the Park will represent a compromise boundary between social and biological pressures, the completion of the Park and buffer zonation/land use plan would be futile and the Park would not be sustainable. While it is important for project implementation to have the Park boundary gazetted in the shortest possible time, it is equally important that the Park boundary, once gazetted, can in future be further rationalized in areas contested by villages (forest/non-forest boundaries) and in forest concessions

bordering the Park with high biodiversity values and with lands categorized as "protected forest" areas so that further adjustments to village and forest concession boundaries can take place. During negotiations GOI provided the Bank with a 1:250,000 base map of the Park showing (a) the delineation of the Park boundary based on the proposed gazetted Park area of approx.1,368,000 ha, and (b) the location of all forest concessions adjoining or near the Park.

5.13 The following assurances were obtained at negotiations: (a) by March 31, 1997, the demarcation of the KSNP boundary would have been completed and that not later than September 30, 1997 the gazettelement of the Park would be completed; (b) by March 31, 1997 GOI would have reviewed measures to improve biodiversity management in the logging concessions adjacent to the Park, including the possibility of excluding logging activities in certain areas. Thereafter, GOI would immediately implement any measure that is found to be feasible; and (c) GOI would take all steps to ensure that existing logging permits for forest concessions in areas adjacent to the Park are not renewed or extended without the inclusion of a biodiversity management zone for the areas adjacent to the Park. Such biodiversity management zones would remain in effect until biodiversity surveys would have been carried out for purposes of identifying significant biodiversity sites to be protected. Thereafter, the identified biodiversity sites would remain as biodiversity management zones.

5.14 The measures which will be evaluated for keeping logging operations as far from the KSNP boundary as possible will include the following: (a) the transfer of intended operations which are adjacent to the Park boundary, to blocks further away from the boundary, and (b) an intense monitoring program under the project of surveillance and observance of the 500-1000 m buffer zone which already applies in GOI regulations to concessions bordering the Park. With respect to the renewal and extension of logging operations in concessions bordering the Park, logging operations will not proceed inside a 3-km biodiversity management zone along the boundary, where applicable, until a biodiversity survey has been carried out.

5.15 **Mining Concessions.** There are a number of concession holders (gold and coal) currently engaged in mining operations which could potentially have adverse impact to the Park. So far their impact on the Park has been small as most concession holders are still at the exploration stage. To reduce the potential impact of these mining operations on the Park, assurances were obtained at negotiations that:

- (a) current exploration permits in the Park area (whether under the initial three-year period or under one of the two one-year extensions) would not be extended after expiration, and that promptly upon the determination by the Ministry of Mining that an area subject to a mining concession lacks significant mineral potential, the applicable mining concession is terminated in accordance with applicable legislation;
- (b) prior to the granting of exploration permits and exploitation or production licenses in KSNP, furnish to the Bank for comments, the full Environmental Impact Assessments (AMDAL) evaluation by GOI's Sectoral AMDAL Commission (*AMDAL Kegiatan Terpadu /Multisektoral*), including the specifications of exploration, mining and extraction methods, and any other mitigation measures required to minimize any adverse impact on KSNP from the proposed activity;

- (c) take all measures necessary to ensure that the exploration permit and the exploitation or production license, is granted solely on terms consistent with the findings and recommendations of GOI's Sectoral AMDAL Commission and the Bank's comments on the AMDAL evaluation; and
- (d) thereafter, ensure that all recommended mitigation measures are promptly and fully carried out.

**5.16 Road Development.** New roads or even upgrading of existing tracks have potentially significant implications for the sustainability of the Park and biodiversity conservation, since they provide access to new settlers and opportunities for the expansion of existing agricultural activities in the Park. To mitigate against potential impact of road development in the Park, assurances were obtained at negotiations that no roads would be constructed or upgraded within KSNP until the completion of the Park Management Plan and the land zoning plan for the project area (para. 4.3), and that an AMDAL would have been carried out. GOI would also ensure that any construction or upgrading would be carried out in a manner consistent with the recommendations of the AMDAL, including recommendations for the carrying out of mitigating measures, and the requirements of the management plan and land zoning plan.

**5.17 Park Encroachment.** Generally the tools available to deal with existing Park encroachment are to amend the Park boundary, to demarcate and enforce enclave boundaries and/or to resettle/relocate encroachers. However, due to the large size of the Park and insufficient staff available to monitor the current impact of individual Park encroachment, there is insufficient information available to assess the current Park encroachment and to decide which course of action should be taken by the project to mitigate such impact. For this reason, assurances were obtained at negotiations that GOI would, until April 1, 1999, not cause or permit involuntary resettlement of persons residing within KSNP and thereafter, confine any involuntary resettlement to that required for purposes of protection of KSNP's biodiversity. During this initial period of about three years, the Project will identify key areas for biodiversity conservation, finalize Park zoning and set criteria for resettlement, if any. The project will generally seek to find all possible alternatives to involuntary resettlement through the use of zonation and land use improvement. If there is any involuntary resettlement to be carried, GOI would furnish to the Bank for approval the Rehabilitation Action Plan (OD 4.30) and, thereafter, carry out the resettlement and rehabilitation of affected persons in accordance with the Resettlement and Rehabilitation Action Plan approved by the Bank. Assurances to this effect were obtained at negotiations.

**5.18 Women, Tribal Groups and Poverty Impact.** The project potentially would affect the livelihoods of tribal group, women, landless and other poor people living in and around KSNP. A major emphasis of the village/area development efforts financed under the project will be to target poor households and poor communities living in Park boundary villages. Over half the project costs are directed to village development affecting 13,400 households the majority of which are poor, landless and/or living in remote areas. Given the targeting and the estimated ERR, the project is expected to have substantial poverty reduction benefits. In the preparation process stakeholder

consultation with these groups have contributed to project design (para. 3.3). Project implementation of both the Park, rural development and the concession component will be carried out through a process of participatory decision making, particularly regarding behavior change to benefit conservation and increase opportunities for sustainable livelihood. Tribal group involvement complies with the requirements of OD 4.20 and the project action plan to deal with these concerns are described in paras 3.16-19.

### C. PROJECT SUSTAINABILITY

5.19 The long-term sustainability of KSNP will to a large extent depend on a shared responsibility in Park conservation between the Ministry of Forestry, local governments of the nine Kabupaten making up the Park and the village communities bordering the Park. Participatory planning, including land use zonation, development of incentives and alternative livelihood opportunities, decentralized decision making and empowerment of local communities, and successful conflict resolution of land related issues, will therefore be crucial. It will also depend on the ownership by the four provincial governments of the zonation/management plan to be made for the Park and on the spatial plan to be prepared for "greater" KSNP, as both plans deal with long-term development perspectives of the Park. The prospects for sustainability are enhanced by the fact that the Bank is assisting GOI in preparing additional rural development projects in the three provinces of Jambi, West Sumatra and Bengkulu, which would provide alternative livelihood to the population and will take pressure off the Park. At the central level the project's sustainability will depend on some critical policy support and willingness to allow flexible administrative and management arrangements. Lastly, public support and awareness for the need of protected area conservation, including access to viable post-project financing would be equally important. The latter is particular important to the long-term sustainability of the Park. While the project would increase the Park's annual budget by two-fold compared with the 1994/5 KSNP budget, it is expected that GOI's fiscal implications beyond the project period would level off to slightly above the current fiscal outlay for KSNP, which are about US\$1.2 million per year. Nevertheless, the project will embark on exploring options for future recurrent cost/investment financing of the Park (para 3.14).

### D. RISKS

5.20 The major risks associated with the project are the threats to KSNP from sources such as road development, human encroachment, and poor logging and concession management practices, thus causing further biodiversity impoverishment and potential Park fragmentation. In addition, care will have to be exercised to deliver the appropriate incentives and effective community participation process and local government commitment to deflect encroachment pressures away from the Park to sustainable development alternatives. Unless GOI shows clear commitment to controlling these risks, including the resolving of any infringement of rights of foreign and national concession holders, the Park's biological diversity will not be maintained over the long-term. The issue of Park integrity will be addressed in certain policy agreements and interventions by GOI prior to and during

project implementation (paras 5.11/17). Other risks concern the present lack of integrated management plans, coordination between agencies, and enforcement of regulations within the Park and the buffer zones. These risks will be addressed by an ICDP project approach which will introduce a greater participatory role of local government officials and local communities, integration of regional and Park planning, and the establishment of an inter-provincial project secretariat. This will be linked to a strong project environmental and socio-economic monitoring program to provide feedback to project management and allow refinement or corrections in proposed project interventions. It is clear that this project has significant risks. Nevertheless, the project should proceed because Sumatra's forests and biodiversity have been decimated over the last twenty years and the remaining primary forests and biodiversity is largely contained in the protected area network, particularly Kerinci Seblat. It should also proceed because of its importance as a pilot project to demonstrate Park interventions which can be replicated elsewhere in Indonesia, particularly concerning the critical role of people in conservation and in developing a planning process that integrates biodiversity conservation with development.

**INDONESIA**  
**Kerinci Seblat Integrated Conservation and Development Project**

**ESTIMATED PROJECT COSTS AND FINANCING PLAN**

<u>Estimated Cost<sup>1</sup></u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
		(US\$ Million)	
1. Park Management	8.0	4.0	12.0
2. Concession Bio.Assessment	2.0	0.6	2.6
3. Area/Village Development	20.2	2.8	23.0
4. Monitoring and Evaluation	2.3	1.1	3.4
<b>TOTAL BASE COSTS</b>	<b>32.5</b>	<b>8.5</b>	<b>41.0</b>
Physical Contingencies	0.9	0.2	1.0
Price Contingencies	3.3	0.7	3.9
<b>TOTAL PROJECT COST<sup>2</sup></b>	<b>36.6</b>	<b>9.4</b>	<b>46.0</b>
<u>Financing Plan</u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
		(US\$ Million)	
GOI	10.4	1.4	11.8
IBRD Loan	15.6	3.5	19.1
GEF Grant	10.6	4.4	15.0
<b>TOTAL</b>	<b>36.6</b>	<b>9.4</b>	<b>46.0</b>

<sup>1</sup> Includes Taxes and Duties estimated at US\$3.7 million equivalent.

<sup>2</sup> Numbers may not add up to the total due to rounding.

**INDONESIA**  
**Kerinci Seblat Integrated Conservation and Development Project**

**Procurement Arrangements**  
(US\$ '000)

	Procurement Method				Total
	National Competitive Bidding	Other /a	Consulting Services	N.B.F /b	
<b>A. Civil Works</b>					
Buildings and Structures	2,314.3 [1,388.6]	-	-	-	2,314.3 [1,388.6]
Village Infrastructure	-	5,761.2 (4,609.0)	-	-	5,761.2 (4,609.0)
<b>B. Equipment, Furniture.</b>					
Office/Field equipment & Furniture/c	633.7 (188.1) [318.7]	66.1 (5.6) [47.2]	-	-	699.8 (193.7) [365.9]
Aerial photography	604.5 (483.6)	-	-	-	604.5 (483.6)
Remote Sensing Equipment	-	47.4 (37.9)	-	-	47.4 (37.9)
<b>C. Vehicles</b>	-	-	-	986.8	986.8
<b>D. Training</b>	-	3,084.8 (1,127.5) [1,523.3]	-	288.8	3,373.5 (1,127.5) [1,523.3]
<b>E. Consultant Services</b>	-	-	12,723.0 (4,907.4) [6,572.2]	144.2	12,867.1 (4,907.4) [6,572.2]
<b>F. Studies</b>	-	-	825.5 (743.0)	-	825.5 (743.0)
<b>G. Survey and Research</b>	-	-	4,579.1 (1,022.8) [3,098.3]	-	4,579.1 (1,022.8) [3,098.3]
<b>H.. Extension &amp; Planning</b>	-	6,127.0 (4,050.3) [1,346.4]	-	-	6,127.0 (4,050.3) [1,346.4]
<b>I. Agricultural and Other Inputs/d</b>	-	1,453.8 (1,163.0)	-	-	1,453.8 (1,163.0)
<b>J. Incremental Operational Costs</b>	-	-	1,703.4 (806.9) [726.2]	4,278.8	5,982.2 (806.9) [726.2]
<b>TOTAL.</b>	3,552.5 (671.6) [1,707.3]	16,540.2 (10,993.4) [2,916.9]	19,831.0 (7,480.1) [10,396.8]	6,046.7 -	45,970.4 (19,145.2) [15,020.9]

Note: Figures in ( ) and [ ] are the amounts financed by IBRD and GEF respectively.

\a Includes national shopping, direct contracting and community participation works, simplified procurement procedures for small work and training.

\b NBF - Not Bank Financed

\c Amount less than \$200,00 per contract.

\d Including inputs for village enterprises, but excluding fertilizers.

**Disbursement Plan**  
(US\$ Million)

Category	Amount		Disbursement Rate	
	IBRD	GEF	IBRD	GEF
Civil Works:				
- Buildings and Structures		1.2		60%
- Village Infrastructure	4.2		80%	
Equipment & Furniture /a				
- Parks		0.3		100%; 100%; 65%
- Buffer zone	0.6		100%; 100%; 65%	
Training:				
- Parks	-	1.1	-	90%
- Buffer zone	1.0	0.3	60%	20%
Consultant Services:				
- Parks		2.6	-	90%
- Bufferzone & Land Zoning	4.4	0.5	80%	10%
- Community Services		2.8	-	90%
Extension & Planning:				
- Parks		0.8		80%
- Buffer zone	3.7	0.4	80%	10%
Survey & Research:				
- Parks		1.2		90%
- Buffer zone	0.9	1.6	30%	50%
Studies	0.7	-	90%	-
Agricultural Inputs /b	1.0	-	80%	-
Incremental Operating Expenditure	0.7	0.7	15%	15%
Unallocated	1.9	1.5	10%	10%
<b>TOTAL</b>	<b>19.1</b>	<b>15.0</b>		

/a 100% of foreign expenditures on equipment, furniture and mapping; 100% of local expenditures (ex-factory prices) for locally manufactured equipment and furniture and 65% for locally procured items.

/b Excluding fertilizer which GOI will finance.

**Estimated Disbursement**  
(US\$ Million)

IBRD Fiscal Year	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03
Annual	1.5	1.8	3.7	3.6	3.7	3.3	1.4	0.1
Cumulative	1.5	3.3	7.0	10.6	14.3	17.6	19.0	19.1
GEF Fiscal Year								
Annual	1.0	1.7	3.4	2.9	2.9	2.4	0.6	0.1
Cumulative	1.0	2.7	6.1	9.0	11.9	14.3	14.9	15.0

**INDONESIA**  
**Kerinci Seblat Integrated Conservation and Development Project**

TIMETABLE OF KEY PROJECT PROCESSING EVENTS

- |  |   |
|--|---|
| (a) Time taken to prepare the project: | 4 years <sup>1</sup>  |
| (b) Prepared by:                       | PHPA of the Ministry of Forestry with local and foreign consultants, including some Bank assistance.  |
| (c) First Bank mission:                | October 1991  |
| (d) Appraisal mission departure:       | June 1995   |
| (e) Negotiations:                      | March 1996  |
| (f) Planned date of effectiveness:     | July 1996   |
| (g) List of relevant PCRs and PPARs:   | PCR: Upland Agriculture and Conservation Project (Loan 2474-IND), Report No. 14744<br><br>ICR: Nusa Tenggara Agricultural Support Project (loan 2638-IND), Report No. 14720 |

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<sup>1</sup> Project processing took four years which is more than the norm for similar projects in Indonesia. This was due to: the different views in initial project concept between GOI and the Bank; the amount of effort needed to collect baseline data of such a large and not very accessible area, and the time required to seek out stakeholder views and commitments, including regional impact assessment.

This report is based on the findings of an Appraisal Mission that visited Indonesia during June 1995, comprising Messrs./Ms. Ben van de Poll (Task Manager), Asmeen Khan, Thamrin Nurdin, Pieter Evers, John Dalton, Oyvind Sandbukt. Assistance was also provided by Messrs. Jim Douglas, Scott Guggenheim, Charles Di Leva and Ms. Salenna Prince. The peer reviewers were Mss. Susan Shen and Augusta Molnar. The GEF external technical reviewers were Mr. Jeff McNeely (IUCN) and Ms. Christine Paddock (New York Botanic Garden). Ms. Marianne Haug, Director, EA3 and Mr. Gershon Feder, Chief, EA3AG, have endorsed the project.

**STATUS OF BANK GROUP OPERATIONS IN INDONESIA**

**A. STATEMENT OF BANK LOANS AND IDA CREDITS /a**  
(as of December 31, 1995)

Loan/ Credit umber	Fiscal Year		Amount (US\$ million)		Undis- bursed
			Bank	IDA	
			Original principal (less cancellation)		
One-hundred-thirty-three loans and forty-eight credits fully disbursed			11,371.62	901.60	
Of which SECALS, SALs and Program Loans /b					
2780	1987	Trade Policy Adjustment	300.00		
2937	1988	Second Trade Policy Adjustment	300.00		
3080	1989	Private Sector Development	350.00		
3267	1991	Second Private Sector Development	250.00		
Subtotal:			1,200.		
2705	1986	Manpower Development and Training	54.90		1.02
2930	1988	Forestry Institutions & Conservation	30.00		3.49
2932	1988	Jabotabek Urban Development	150.00		18.78
2940	1988	Accountancy Development	113.00		9.56
2992	1989	Tree Crops Human Resource Development	18.40		1.60
3000	1989	Tree Crops Processing	88.40		19.57
3031	1989	Agriculture Research Management	34.53		1.68
3040	1989	Industrial Restructuring	236.96		3.15
3042	1989	Third Health	43.50		6.56
3097	1989	Power Sector Efficiency	321.00		22.68
3098	1989	Paiton Thermal Power	346.00		33.77
3112	1990	Public Works Institutional Development & Training	36.10		2.13
3158	1990	Second Secondary Education	154.20		46.52
3180	1990	Rural Electrification	273.56		12.30
3182	1990	Third Telecommunications	322.50		55.95
3209	1990	Gas Utilization	86.00		52.28
3219	1990	Second Jabotabek Urban Development	190.00		54.41
3246	1991	Third Jabotabek Urban Development	61.00		28.53

/a The status of the projects listed in Part A is described in a separate report on all Bank/IDA-financed projects in execution, which is updated twice yearly and circulated to the Executive Directors on April 30 and October 31.

/b Approved during or after FY80.

Loan/ Credit umber	Fiscal Year		Amount (US\$ million)		Undis- bursed
			Bank	IDA	
			Original principal (less cancellation)		
3282	1991	Fertilizer Restructuring	221.46		17.51
3298	1991	Fifth Population	103.80		13.42
3302	1991	Provincial Irrigated Agriculture Development	104.50		35.52
3304	1991	East Java/Bali Urban Development	180.30		49.70
3305	1991	Yogyakarta Upland Area Development	15.50		5.15
3311	1991	Second Higher Education	150.00		20.12
3340	1991	Sulawesi-Irian Jaya Urban Development	100.00		29.31
3349	1991	Power Transmission	171.60		29.30
3385	1991	Technical Assistance Project for Public and Private Provision of Infrastructure	30.00		17.90
3392	1992	Second Irrigation Subsector	215.00		8.69
3402	1992	Agricultural Financing	106.10		70.97
3431	1992	Third Non-Formal Education	69.50		24.99
3448	1992	Primary Education Quality Improvement	37.00		25.48
3454	1992	BAPEDAL Development	12.00		5.64
3464	1992	Treecrops Smallholder	87.60		49.65
3482	1992	Fourth Telecommunications	375.00		257.88
3490	1992	Third Kabupaten Roads	215.00		34.48
3496	1992	Primary School Teacher Development	36.60		19.64
3501	1992	Suralaya Thermal Power	423.60		278.37
3526	1993	Financial Sector Development	307.00		90.25
3550	1993	Third Community Health & Nutrition	93.50		66.17
3579	1993	E. Indonesia Kabupaten Roads	155.00		72.39
3586	1993	Integrated Pest Management	32.00		25.14
3588	1993	Groundwater Development	54.00		40.73
3589	1993	Flores Earthquake Reconstruction	42.10		14.79
3602	1993	Cirata Hydroelectric Phase II	104.00		87.64
3629	1993	Water Supply & Sanitation for Low Income Communities	80.00		66.63
3658	1994	National Watershed Management and Conservation	56.50		51.64
3712	1994	Second Highway Sector Investment	350.00		282.82
3721	1994	Skills Development	27.70		26.42
3726	1994	Surabaya Urban Development	175.00		164.80
3732	1994	Fifth Kabupaten Roads	101.50		77.86
3742	1994	Dam Safety	55.00		49.91
3749	1994	Semarang-Surakarta Urban Development	174.00		158.96
3754	1994	University Research for Graduation Study	58.90		53.46
3755	1994	Integrated Swamps	65.00		60.06
3761	1994	Sumatera & Kalimantan Power	260.50		249.91
3762	1994	Java Irrigation Improvements and Water Resource Management	165.70		155.86

Loan/ Credit Number	Fiscal Year		Amount (US\$ million)		Undis- bursed
			Bank	IDA	
			Original principal (less cancellation)		
3792	1995	Land Administration	80.00		77.22
3810	1995	Second Accountancy Development	25.00		24.40
3825	1995	Second Professional Resource Development	69.00		63.93
3745	1995	Second Rural Electrification	398.00		397.50
3854	1995	Kalimantan Urban Development	136.00		134.30
3886	1995	Second Agriculture Research Management	63.00		63.00
3887	1995	Book & Reading Development	132.50		130.50
3880	1995	Village Infrastructure	72.50		58.69
3904	1995	Telecommunications Sector Modernization	325.00		325.00
3905	1995	Fourth Health	88.00		88.00
3913	1995	Second Technical Assistance Project for Public and Private Provision of Infrastructure	28.00		27.00
3972	1996	Industrial Technology Development /a	47.00		47.00
<u>Total</u>			<u>20,407.63</u>	<u>901.60</u>	
of which has been repaid			<u>5,310.49</u>	<u>145.67</u>	
<u>Total now held by Bank and IDA</u>			<u>15,097.14</u>	<u>755.93</u>	
Amount sold 88.08					
of which repaid 82.35					
<u>Total undisbursed</u>					<u>4,599.68</u>

/a Not yet effective as of December 31, 1995.

**B. STATEMENT OF IFC INVESTMENTS**  
(as of December 31, 1995)

Fiscal Year	Committed	Obligor	Type of business	(US\$ million)				Held by IFC	Held by Partic	Undisb'd incl. Partic
				- Original Gross Commitments -						
				Loan	Equity	Partic	Totals			
1971	/a	P.T. Kabel - Indonesia	Industrial equip. & t	1.80	0.37	1.00	3.17	-	-	-
1971		P.T. Unitex	Textiles	0.75	0.80	1.75	3.30	0.35	-	-
1971/73/74/76/84	/a	P.T. Semen Cibinong	Cement & constructi	21.23	5.31	25.27	51.81	-	-	-
1971/74	/a	P.T. Primatexco Indonesia	Textiles	3.35	0.80	0.65	4.80	-	-	-
1972/77/79	/a	P.T. Daralon Textile	Textiles	4.43	1.12	1.73	7.28	-	-	-
1973/89	/a	P.T. Jakarta	Tourism	4.00	1.49	7.00	12.49	-	-	-
1974	/a	P.T. Monsanto Pan	General mfg.	0.90	-	-	0.90	-	-	-
1974	/a	P.T. PDFCI Bank	Development financ	-	0.48	-	0.48	-	-	-
1974/77	/a	P.T. Kamaltex	Textiles	2.36	0.75	1.39	4.50	-	-	-
1980	/a	P.T. Papan Sejahtera	Capital markets	4.00	1.20	-	5.20	-	-	-
1980	/a	P.T. Supreme Indo-Americ	General mfg	5.10	0.94	6.00	12.04	-	-	-
1980/88		P.T. Semen Andalas	Cement & constructi	28.51	5.00	28.53	62.04	21.23	11.98	-
1982/85/94		P.T. Seseka Gelora	Capital markets	4.52	0.38	2.00	6.90	0.38	-	-
1988	/a	P.T. Nonterado Mas Minin	Mining	3.50	2.00	4.50	10.00	-	-1.35	-
1988		P.T. Asuransi Jiwa	Capital markets	-	0.32	-	0.32	0.32	-	-
1988		P.T. Bali Holiday Village	Tourism	9.32	-	2.00	11.32	0.66	-	-
1990	/a	Nomura Jakarta Fund (NJF)	Financial services	-	3.00	-	3.00	-	-	-
1990	/a	P.T. Bank Umum Nasional	Capital markets	10.00	-	-	10.00	-	-	-
1990	/a	P.T. Federal Motors	Automotive & acces	12.50	-	-	12.50	-	-	-
1990		Bank Niaga	Capital markets	7.50	-	-	7.50	-	-	-
1990/91/94		P.T. Astra International	Automotive & acces	12.50	35.43	-	47.93	22.29	-	-
1990/91/95		P.T. Indo-Rama Synthetics	Textiles	57.00	10.93	67.50	135.43	54.23	72.95	2.21
1991	/a	Raja-Pendopo Oil	Energy	-	3.60	-	3.60	-	-	-
1991		P.T. Agro Muko	Food & agribusiness	10.50	2.20	-	12.70	6.40	4.55	-
1991		P.T. Argo Pantas	Textiles	30.00	13.00	53.00	96.00	33.63	34.07	-
1992		P.T. Indonesia Asahi	Textiles	4.00	1.83	-	5.83	3.43	-	0.33
1992		P.T. Rimba Partikel	Timber, pulp & pape	9.88	0.60	10.00	20.48	10.07	5.83	-
1992		P.T. Swadharna Kerry	Tourism	35.00	-	51.00	86.00	28.00	53.75	-
1992/94		P.T. Lantai Keramik Mas	Cement & constructi	5.40	3.10	10.00	18.50	4.23	8.73	0.13
1992/95		P.T. Bakrie Kasei Corp.	Chemical & petroch	60.00	12.63	95.00	167.63	65.63	94.08	5.00
1993		P.T. BBL Dhamala Finance	Capital markets	5.00	-	-	5.00	1.01	1.64	-
1993		P.T. Nusantara Tropical	Food & agribusiness	9.00	-	7.00	16.00	4.00	12.00	0.75
1993		P.T. Samudera Indonesia	Industrial services	12.00	5.00	3.00	20.00	7.73	9.15	-
1993		SEAVI Indonesia Aruba	Capital markets	-	1.50	-	1.50	1.50	-	-
1993/95		P.T. Mitracorp	Industrial services	18.75	4.12	-	22.87	22.57	-	-
1993/96		P.T. South Pacific	Textiles	45.00	-	60.00	105.00	34.52	54.96	31.00
1994		P.T. Asia Wisata	Tourism	-	-	-	0.00	2.43	2.43	-
1994		P.T. KDLC Bali BancBali	Capital markets	15.00	1.14	-	16.14	16.14	-	9.00
1994		P.T. Pama Indonesia	Capital markets	-	0.71	-	0.71	0.71	-	-
1994		P.T. Saripuri Pamai	Tourism	8.00	3.60	24.00	35.60	11.60	24.00	7.60
1994		P.T. Sinar Pure Foods	Food & agribusiness	-	-	-	0.00	0.33	-	-
1994		Prudential Asia Indonesia	Capital markets	-	6.75	-	6.75	6.75	-	2.62
1995		P.T. Bakrie Kasei Pat	Chemical & petroch	12.00	2.00	-	14.00	14.00	-	-
1995		P.T. Bakrie Pipe Industries	General mfg.	29.50	-	-	29.50	29.50	-	20.00
1995		P.T. Bunas Finance Indone	Capital markets	10.00	-	6.00	16.00	10.00	6.00	-
1995		P.T. KIA Serpih Mas	Cement & constructi	15.00	6.35	55.00	76.35	21.35	55.00	41.89
1995		P.T. Panin Overseas Finan	Capital markets	6.00	1.93	4.00	11.93	7.93	-	6.00
1995		PT Citimas Capital Indonesi	Finance services	-	2.61	-	2.61	2.61	-	1.30
Total gross commitments /b				533.30	142.99	527.32	1203.61			
Less cancellations, terminations, repayments & sale				216.76	14.00	77.55	308.31			
Total commitments now held /c				316.54	128.99	449.77	895.30	445.53	449.77	127.89

/a Investments have been fully cancelled, terminated, written-off, sold, redeemed, or repaid.

/b Gross commitments consist of approved and signed projects.

/c Held commitments consist of disbursed and undisbursed investments.

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## PART II: Technical Annexes

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## **ANNEXES**

1. Details of Project Components
  - A. Park Management
  - B. Area/Village Development
  - C. Integrated Biodiversity in Forest Concession Management
  - D. Monitoring and Evaluation
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## **CHARTS**

1. Project Organization
2. Planning and Funds Flow for Integrated Area Development Activities

## **MAP**

IBRD 27251

## DETAILS OF PROJECT COMPONENTS

### A. PARK MANAGEMENT

#### Management Planning and Park Zonation

The first major project activity will be the preparation of a comprehensive management plan for the Park. This plan will guide and control the management of Park resources, zone land within the Park, and provide a plan for infrastructure development within the Park and its buffer zone. The planning process will be implemented with close consultation and coordination with the regional planning agencies (BAPPEDAs), local governments and target communities.

#### Institutional Strengthening

The institutional strengthening component will focus on the following activities: (a) strengthening Park personnel through additional recruitment and technical assistance; (b) providing in-service training to Park personnel for management and extension activities; and (c) improving infrastructure for enhanced management and enforcement activities.

- (a) *Strengthening Park Personnel:* Currently the Park is understaffed with a total complement of 71 personnel. The GOI, as part of its commitment towards enhancing Park management, has agreed to assign four senior PHPA staff to each province, based on performance and staff formation given by the State Minister of Administrative Reform, who would assist the Park director by coordinating Park activities within each province. In addition, 100 new project field staff, *Pegawai Proyek*, would be recruited over the life of the project to supplement existing field staff. The GOI has agreed to regularize these staff as permanent employees based on performance and the number of staff allocated by the State Minister of Administrative Reform. In addition PHPA will start a "Community Partnership Program" through which 190 field-staff will be recruited from local target communities as Park community extension workers. The Project will also support PHPA through the provision of long-term technical assistance including an internationally recruited Park planner, and wildlife enforcement officer. In addition, local staff or international volunteers will be assigned to the Park to assist with ecology, management, extension and training.
- (b) *Training:* Training will be provided to Park management staff, field staff and community extension workers. The project will focus on developing staff capabilities to protect and manage the Park through both formal and informal in-service training provided by trainers on the TA team. The project will send four qualified senior staff on three month short course in Park management, as well as

international working visits to national Parks in the region. In years 2-3, traveling seminars will be held for PHPA technical staff to visit other Indonesian national Parks. Field staff will receive broad training on enforcement and ecological monitoring from the Senior Planner and wildlife specialist, as well as receive field manuals for identifying major wildlife. The project will also train and equip four special mobile enforcement teams in each province as special task forces for back-up enforcement. The community extension workers will be provided with in-service training in organizing village conservation groups, and wildlife identification. Training will be provided by the Park sociologists, extension and education officers.

- (c) *Park Infrastructure Support:* Infrastructure support consists of cost-sharing the upgrading and rehabilitation of existing Park structures (8 field stations and Park headquarters) and construction of provincial field quarters (4), new field stations (40), information centers (6) and visitor centers (2). In addition the project will provide over 100 signposts and entrance posts providing information on the Park. Annual maintenance of these structures will be provided through the GOI's recurrent budget. The project will assist in providing a full-range of ~~costs~~, technical and field equipment, including communications equipment to facilitate enforcement and management activities. The GOI has agreed to assign additional vehicles and motor cycles to Park authorities to facilitate field enforcement and mobile extension activities.

### **Boundary Rationalization and Biodiversity Sustainability**

3. Boundary rationalization activities, including biodiversity sustainability, focus on two major issues: (a) boundary conflict resolution with target villages within and along the park; and (b) improvement of biodiversity sustainability in the forest concessions bordering the Park. Boundary rationalization activities regarding disputed land between villagers and or encroachers and Park management would continue to be carried out during the first 2 or 3 years of project implementation and are directly related to preparation of the Park management plan. The project would also review measures to improve biodiversity management within the logging concessions bordering the park, particularly in areas adjacent to KSNP. The project would pay for the biodiversity survey work in these areas. The project will also work with forest concessionaires and the MoFr Forest Utilization directorate to institute a KPHP program which would improve the management of the forest concessions.

4. Encroachment of Park lands is a major issue for Park enforcement and integrity, and is a direct result of inadequate enforcement. There are 134 target village areas where boundary conflict resolution is required. The process of resolving conflicts with local communities over land use within the Park will be handled through several options: (a) negotiating temporary land-use rights in the Park; (b) implementing boundary changes; and (c) providing rural development incentives based on signing agreements that commit communities to respect demarcated boundaries and agreed land-use practices. This strategy would reduce the need for Park enforcement. In addition a fourth option, of "*Pohon Kehidupan*" program, will also be implemented which allows settlers

several options including voluntary resettlement; or gradual conversion of existing farming systems to permanent multipurpose fruit tree production.

### **Management Activities**

5. Three categories of management activities will be implemented by PHPA field staff during the course of the project: (a) wildlife protection and management; (b) establishment of a living boundary marking and posting; and (c) habitat rehabilitation. The project will focus on protection of large mammal fauna by developing effective enforcement systems to combat poaching. Activities include field surveys; establishing elephant patrols; and barriers against animal raiding. Live boundary marking will be implemented over the life of the project by demarcating 500 km of boundary using Arenga palm seedlings. Local villagers will be contracted to plant and care for these seedlings. These in combination with cement boundary markers will assist the public in determining the exact boundary of the Park. Habitat rehabilitation activities will focus on yearly assessment and status update of encroached land within the Park (4000 ha per year will be surveyed); rehabilitation of degraded areas with multi-purpose indigenous trees; and the development of 10 village nurseries to raise 65,000 seedlings for replanting programs.

### **Research**

6. The project will support management-oriented research, including species distribution and population dynamics. Rapid biodiversity appraisals to determine appropriate use and Park zoning will be done in the first two years of project implementation through specialist institutes such as the Indonesian Institute of Sciences (LIPI), the Center for International Forestry Research (CIFOR) and local Sumatran universities. Ecological monitoring activities will be identified by the Park management team including consultant biologists, and will be implemented by the monitoring team whose activities are described under the monitoring component. In addition a small project-supported research fund will provide seed money for research projects consistent with Park management objectives submitted by local NGOs and university researchers. Proposals for biodiversity grants would be reviewed by the Park authorities assisted by a peer review panel of external experts.

### **Monitoring**

7. Monitoring activities will be implemented by the monitoring team whose activities are described under the monitoring component.

### **Extension and Awareness**

8. The project will develop a broad public awareness program to promote local appreciation of the Park through conservation promotion interventions. The program will be initiated in year 2 and continue through the duration of the project. Priority target groups include (a) local communities; (b) local government officials; (c) educational and religious institutions; (d) media and the press. Activities include development of community-based conservation materials; local workshops; public information; training; promotion of ecotourism opportunities; and educational materials development.

## **Management and Implementation**

9. The project will be based at Park headquarters in Sungai Penuh (Jambi province), and will establish and equip a field office in Curup (Bengkulu province) near priority areas targeted for integrated development and Park management activities. The Project manager assisted by a PIMPRO will be responsible for the overall management of project staff and technical assistance team. He will be assisted by the four senior-province based staff in implementing project activities and will also receive support from technical assistance staff.

10. Implementation of field activities will be through the existing line structure with extension workers and community field workers implementing community awareness, extension and enforcement activities and reporting through the provincial field-staff structure to the Park Manager (Figure 1). Pre-project implementation activities will focus on rehabilitation of Park headquarters, re-deployment and recruitment of staff, assessment of potential Park boundary problem areas. During the first year of project implementation, Park management activities will focus on: initiating community partnership programs; coordinating with local government; preliminary species surveys; boundary and encroachment surveys; social forestry and boundary demarcation activities; and extension and community awareness programs.

## **Component Linkages**

11. The Park management component will be closely coordinated with the area/village development component and the forest concession management component through the following: (a) targeted site selection of villages for rural development activities - in the first year of implementation activities will be in four sites (Tapan, Jangkat, Katenong, Ketahun) where human interactions are having a major adverse impact on biodiversity; (b) through coordinated community awareness programs linked to enforcement activities; (c) through boundary demarcation and completion of Park gazettement; and (d) through biodiversity surveys and protection of biodiversity habitats within the concessions. Coordination of component activities will take place through the inter-provincial coordination committee (IPCC) described under the project organization section.

## **B. AREA/VILLAGE DEVELOPMENT**

### **Objective**

12. The rural development component's main objective is to reduce encroachment and conserve biodiversity, by providing incentives for alternative livelihoods to local communities who currently use Park resources. This component aims to provide assistance to 134 target boundary villages to improve resource management on village lands, ensure security of access to traditionally used resources, increase agricultural productivity and improve village infrastructure. Project activities will target groups, most dependent on Park resources, and provide them with alternative income-generating opportunities. Activities will be implemented by local government agencies with technical support from project-financed advisors and local NGOs. The component will be largely implemented by the communities in the park interaction zone in accordance with a

participatory development process involving four steps, namely: situational assessment, planning and work programming, implementing and monitoring, review and evaluation and re-planning. This iterative process will be initiated and sustained in each target community by resident project facilitators working in close collaboration with formal and informal leaders and through traditional or newly-organized common-interest groups. In close conjunction with members of visiting technical assistance team and various staff from the Kecamatan and Kabupaten, each community will be assisted to first generate by consensus their own village land use and village development plan.

### **Village Resource Management**

13. The village planning process would rationalize land use, secure access to resources, establish development priorities and conserve biodiversity in selected Park boundary villages. The project will assist communities map village boundaries and current land use/ownership practices, evaluate and capability, and through a consultative decision-making process, institute land use zonation for agriculture, non wood forest products and conservation areas. The land use plan will be formalized as a **Community Conservation Agreement**, that legalizes village access to resources in the Park and its buffer zone, and guarantees specified development assistance, in return for community cooperation in Park protection and conserving biodiversity resources on village lands. The project will assist the local Kabupaten legislature to prepare and pass legislation recognizing the legality of such agreements.

### **Village Development**

14. Village development activities raise the economic status of the whole village by providing infrastructure support (water, small roads, culverts) to raise income and create goodwill for the Park, and assistance for diversifying agriculture thus providing poor villagers with higher income from village lands. Each target village will receive a maximum of US\$50,000 for a combination of infrastructure and agricultural assistance. Activity selection will be based on development priorities set in the village development plan, produced through a participatory decision-making process coordinated by the village head and the village development council (LKMD). Activities will be selected from a menu of development activities that meet project criteria. Villagers would provide labor, and if necessary use credit to purchase fertilizer and other inputs. The implementing agency will provide expertise, extension, equipment and construction materials financed by the project. Development activities will be phased with ten villages selected in the first year, 18 in year 2, 19 in year 3, 28 in year 4, 29 in year 5, and 30 in year 6 or a total of 134 target villages. This gradual phasing will allow local organizations time to develop sufficient institutional capacity to implement participatory, community based activities at the village-level. In addition the project will support a series of feasibility studies to determine the economic feasibility of a number of alternative income-generating enterprises such as ecotourism. These will be identified by the Project Steering Committee during implementation. The studies will be commissioned through local business and marketing consultants.

### **Planning Support**

15. Village-level plans will be based on the village-resource management exercise, and will involve local NGO staff working with local communities, using PRA and micro-planning techniques, over a 6-8 month period to prepare an annual work program as well as an overall five-year village plan. This plan will identify priority activities requiring external support, financing, time-frame and include community contributions. Similarly at the district-level, for the five priority Kabupatens, spatial plans will be revised to account for natural resource distribution, the impact of their utilization and other forms of development (such as roads) on biodiversity conservation. This multi-sectoral planning will be conducted by BAPPEDA II (the planning agency at the Kabupaten-level) with technical assistance provided by the project.

### **Training**

16. Training is a major activity in terms of building institutional capacity to implement ICDP activities. A training needs assessment will be conducted in the first or second year of project implementation to devise a Rural Development Training Plan tailored to the needs of project coordinators, Bappeda Planners, kecamatan staff and extension agents. In addition, annual Zopp participatory planning meetings will be held with principal project stakeholders to ensure that feedback from community groups and implementation agencies is incorporated in annual project work-plans. Training will be provided by members of the Technical assistance team and planning advisors. PRA training for community organizers (para 19) selected from boundary villages, and local NGOs will be provided by WWF.

### **Management and Implementation**

17. The lead agency managing this component will be the BAPPEDA II, who will act as the Kabupaten-level coordinator (PIMPRO). The Kabupaten-coordinator is the primary manager for implementing and monitoring component activities. The PIMPRO coordinates the activities of the relevant technical agencies (Dinases) providing technical and extension services to target villages and the technical advisory team including local NGOs. Each district involved in the project will be facilitated by a management support group composed of the PIMPRO, the WWF district coordinator and visiting WWF specialist staff, visiting members of the technical support team (this includes: a rural development advisor, agricultural advisors, small enterprise advisors, planners), and representatives of participating extension agencies selected as the situation requires. The PIMPRO reports to the Bupati (District Head) and the BAPPEDA I at the provincial-level. The Technical Assistance to be provided by WWF would focus on the process of participatory village land use and village development planning, including facilitating a Community Conservation Agreement and training of village facilitators, whereas the technical support team would provide a more specific technical facilitating role, including regional planning and would be closely associated with the staff of the technical agencies. Coordination of activities between Kabupatens and Provinces takes place through the Inter-Provincial Coordination Committee. This committee is composed of representatives of the four governors, the Park Director, a representative of the MoFr Forest Utilization directorate, and WWF.

18. Implementation of component activities is built around three major processes: village selection; formulating an activity menu; and village implementation. Village selection will begin early in implementation to prioritize villages and identify special management areas. Each Kabupaten will develop an activity menu of project approved activities that will be formulated through a process of expert evaluation, feasibility study and information exchange with other kabupatens. Implementation follows a phased sequence of activities: survey, situation analysis, facilitation, planning, implementation and monitoring. Village development activity proposals are prepared by target groups (facilitated by local community organizers and NGOs), reviewed by the village council (LKMD) and forwarded by the village head as a development proposal (DUP) through a consultative process (UDKP) at the sub-district (kecamatan-level). These are then forwarded to the Kabupaten where the proposals will be reviewed by the Kabupaten PIMPRO and forwarded to a provincial guidance team for approval. Funds will be channeled through the Kabupaten PIMPRO who will release them to the lead technical agency responsible for assisting villagers implement a project activity.

19. Resident village facilitators (tenaga/pendamping) will play a key role in the village development component. They will initiate and supervise all community-based implementation of project activities in each target village, including the identification and strengthening of existing common-interest groups and the organization of target groups, orienting and assisting them with participatory rural appraisal, village land use- and development planning, annual work programming and budgetting, and with implementing their planned development interventions. Owing to the critical importance of this facilitation function, the work involved, and the isolation and size of most target villages, there will be two facilitators assigned to each village. The village conservation facilitator (VCF) will be a graduate or high school diploma-holder experienced in community work recruited from the district. The local community organizer (LCO) will be recruited from the village and nominated by the LKMD. The LCO will act as the local assistant trainee to the VCF and towards the end of the establishment phase (i.e. during the third year of implementation) will assume increasing responsibility for facilitating project processes in the village. After the third year the VCF will move on to initiate and facilitate the project in the other villages targeted during the expansion phase (Years 4-6).

### **Component Linkages**

20. The area/village development component has close links to Park management, improved concession management and planning activities. In Park management, target village selection and boundary rationalization activities have to be coordinated with Park management activities. Park staff will also participate in negotiating community conservation agreements with boundary villages as a prerequisite for development investment. The two components will also develop monitoring indicators for human impact on the Park. In concession areas, the rural development component will target twenty four villages for development assistance. Planning advisors will also assist the Kabupaten technical advisory team to ensure the project activities conform to regional and spatial plans.

## **C. INTEGRATING BIODIVERSITY IN FOREST CONCESSION MANAGEMENT**

### **Concession Biodiversity Assessment**

21. This component will support four main activities. These include: training for enhanced biodiversity conservation within forest concessions; independent audits of logging operations; biodiversity assessment conservation within production areas; and community forestry activities.

### **Training for Improved Forest Management within Conservation Areas**

22. The project will provide short-term technical expertise to assist the Ministry of Forestry, provincial forest agency (Dinas Kehutanan) and concessionaires with the implementation of improved biodiversity conservation within concession areas. Focus will be on forest sites during and after logging. The project will provide training support to selected trainees from the Ministry, Dinas, concessions. Training will focus on techniques and knowledge needed to conserve in-situ biodiversity in concession areas. The project will provide support for 220 traineeships of 2-3 week duration. The project will also fund production of training materials, visiting experts and field travel as required. Training activities will be linked to biodiversity assessment information generated from concessions.

### **Independent Audits of Logging Operations**

23. To ensure that upgraded monitoring and enforcement is having the desired effect, the project will contract the services of a forest inspection firm to audit operations in the eleven concessions bordering the Park. Standards for forest management, environmental and social performance based on those currently being developed by the Indonesian Ecolabelling Institute (LEI) in collaboration with the international Forest Stewardship Council will be employed. The LEI will be invited to participate in field inspection activities. Inspection activities will be phased with, two concessions (picked at random) selected per year for audits. Audit results will be submitted to the IPCC and the Directorate of Forest Utilization for appropriate follow-up and action.

### **Biodiversity Conservation within Concession Areas.**

24. The project will support field ecological surveys to identify and locate especially biodiverse areas within the concessions. The surveys will make use of existing field, GIS and remote sensing data available from INTAG (Directorate for Forest Inventory), and other GOI agencies. The project will also support initial activities to demarcate and manage these areas. This component will require close coordination with the Park Management team and the Park Director. Project funds will pay for short-term field biodiversity specialists and field survey costs.

### **Community Forestry**

25. The project will identify areas (based on remote sensing and ground survey) where significant encroachment has occurred into logged-over and unlogged production forest areas. Communities living in or near such areas will be identified through field socio-economic surveys, and engaged in community forestry and rural development activities as described under the rural development component. Such communities will be selected for allocation of community forestry agreements, and the project will provide income generating investments, and inputs to improve land use on these sites. The continuity of financial support will be made contingent upon performance in curtailing encroachment. Some twenty four villages will be selected out of the 134 target villages near forest concession areas. Activities under this sub-component will be implemented jointly with the rural development component.

### **Management and Implementation**

26. A staff of the Kanwil Kehutanan Jambi, section responsible for concession monitoring, will be assigned as the project manager (PIMPRO) for the project. The PIMPRO is responsible for the day-to-day implementation of activities financed under this component, and will report through the Kanwil Kehutanan to a Project Management Committee in the Ministry of Forestry. The PIMPRO will be supported by a project-funded Management Support Unit and Technical Advisory Group which will assist with annual planning, financial management, monitoring and reporting. The technical advisory team will include a: senior ecologist, training and biodiversity consultants and a community forestry advisor attached to the rural development team. Field programs will be implemented through the Dinas Kehutanan II (Pimbagpro) in the Kabupatens covering the target concession areas (Sarolangun Bangko and Bungo Tebo in Jambi and Bengkulu Utara in Bengkulu).

27. An ICDP Project Management Committee (PMC) will be established to supervise the Park Management and Concession Management components within the Ministry of Forestry. The PMC will provide policy and technical guidance. The PMC will be chaired by the Director Bureau of Foreign Cooperation (KLN) with members from the DG Forest Inventory and Land Use (INTAG), DG PHPA (Director of National Parks, and Director Bina Programs), DG Forest Utilization (Director of KPHP and Director Bina Programs), the Secretary General's Office, Forest Research and a representative of the forest concessionaire's association (APHI).

### **Component Linkages**

28. Activities financed under the Concession Management Component will be closely coordinated with the Park Management component, specifically: boundary delineation and ecological surveys within the concession areas; and with the Rural Development component; specifically selection of target villages for community forestry activities and the financing and implementation of village infrastructure and income generating activities.

## **D. PROJECT MONITORING AND EVALUATION**

29. The monitoring program aims to develop the institutional capacity of the various agencies involved in the conservation and protection of the Park to monitor biodiversity and socio-economic conditions and to plan "Park friendly" economic programs. The program will support the Park Management and Biodiversity Conservation component by providing tools for

monitoring encroachment, poaching, and other uncontrolled development activities within the Park and by developing performance indicators assessing the health and well-being of the Park. It will support the Concession Management component by monitoring the integrity of the boundaries between the concessions and the Park and by monitoring forest conditions and management practices within the concessions. It will support the Rural Development component by developing capacities for analyzing the impacts of rural development activities both on the Park and on the local communities in the buffer zone around the Park and by assessing the project's effectiveness in enhancing the socio-economic conditions of local people.

30. The project will provide technical assistance support in the first year of the project to design and establish the overall monitoring system, including the Geographic Information System. In addition, assistance will be provided to finalize the selection of appropriate indicators, develop a Data Base Management system, input baseline data, introduce and integrate the system into the existing institutional environment, and implement a human resource development program to enable the staff of the various government agencies at various levels to operate the system. In the second and third years of the project, the practical application of the system will be tested. The system will be fully operational at this stage to support evaluation and impact assessment activities. Following a thorough review, additional data and indicators will be added to the database. The monitoring and evaluation systems will include Geographic Information System capabilities that will be integrated into the overall Management Information System.

31. The technical assistance will include approximately 99 staff-months of support (16 months expatriate and 83 months local). The TA will include a long-term local GIS/monitoring specialist who will serve as team leader and assist the Park manager in supervising the M&E activities. It will also include an expatriate monitoring advisor, an MIS specialist, and an evaluation specialist. The project will provide support for computer hardware and software for the monitoring and evaluation activities at the Park office and at the provincial and kabupaten planning offices. Support will also be provided for data collection and conversion. This will include satellite imagery, aerial photography, map baseline data, ground verification data, and socio-economic surveys. Training (approximately 153 staff-months) will be provided to provincial, kabupaten, and Park managers to ensure the systematic use of the monitoring information in the planning and decision-making processes.

32. The monitoring and evaluation activity will fall under the direction and responsibility of the Park management office in Sungai Penuh. This office will establish a "base" for the information system and will collaborate and cooperate with the existing information collection and analysis activities of a local NGO (World Wildlife Fund). Each of the agencies with a responsibility for implementing components of the project (e.g., the BAPPEDAs and the Kanwils Kehutanan) will also be strengthened with a "subset" of the overall monitoring system. The Park manager will be overall responsible for the development and implementation of the M&E system.

## SUMMARY SOCIAL ASSESSMENT INFORMATION FOR BOUNDARY VILLAGES

### Demographic Factors

1. The population in the nine buffer zone districts (kabupatens) surrounding the Park is approximately 3.3 million. The 36 sub-districts (Kecamatans) bordering the Park have a population of 1.64 million. The population of the 468 boundary villages ranges from 500-700,000 people. The largest population concentrations in the immediate vicinity of the Park, are at Sungai Penuh (62,000) in the center, Lubuk Linggau (103,000) and Curup (131,000) in the South. Population density in the rural kecamatans varies between 8-80 persons per km<sup>2</sup>. The village populations range from several hundred to more than a thousand inhabitants (50-300 households). The population in the four provinces grew by 2.8 percent p.a. in the period 1970-90, well above the national average of 2.0 percent. In-migration is the major cause of this high level of population growth, in particular in Bengkulu province where annual growth was close to 4.4 percent. The province of West Sumatra is an exception, where growth rates are decreasing from 2.2 to 1.6 percent due to a long tradition of male out-migration.

**Table 1. Population Distribution by province and Kabupaten**

Province	Kabupaten/Kecamatans	Population
W. Sumatra	Pesisir Selatan (6)	328,490
	Solok (4)	178,342
	Sawahlunto (1)	44,213
Jambi	Kerinci (6)	283,924
	Bungo Tebo (3)	154,498
	Bangko (5)	133,247
S. Sumatra	Musi Rawas (4)	181,046
	Bengkulu	182,914
	Bengkulu Utara (3)	157,606

The project strategy is to develop a series of programs ranging from incentives to pull people away from the boundary villages, to alternative income generating programs for households in these villages.

### Cultural Groups and Local Institutions

2. There is considerable ethnic variation between the four provinces, and with this variation in traditional village organizations, systems of community organization, and village-level decision-making over resource management. The following table gives a breakdown of the predominant ethnic groups and their use of local institutions for resource management. There are two sets of institutions that operate in these boundary villages: traditional organizations such as the *Ninik Mamak*, *Kaum and Marga*, and government established institutions such as the *Lembaga Ketahanan Masyarakat Desa* (LKMD) and the *Lembaga Masyarakat Desa* (LMD) the

village development council and consultation forum which takes decisions on development activities at the village level and is the officially recognized forum for village-based consultation. In many of the boundary villages, due to in-migration of Javanese and other ethnic groups, traditional institutions no longer play a significant role in regulating resource use. This allows outsiders to enter protected forest areas for agriculture, tree crops and other opportunistic use. Traditional organizations continue to exert a major influence in land use and resource access decision-making in boundary villages in West Sumatra, Kabupaten Kerinci and in some villages in Bengkulu. The project design calls for an in-depth inventory of these institutions and will support their involvement in project implementation as well as formal village institutions.

**Table 2. Distribution of Ethnic Groups by Province**

Province	Ethnic Group	Village Organizations
West Sumatra	Minang	Ninik Mamak LKMD, LMD
Jambi	Kerinci Javanese Sundanese	Kaum LKMD, LMD
South Sumatra	Batak Rejang	Marga LKMD, LMD
Bengkulu	Rejang Javanese Minang Batak	Marga LKMD, LMD

### Categories of Encroachers

3. There are five categories of encroachers operating in KSNP boundary villages:
  - (a) Wealthy "Patrons" (Pertani berdasi) who finance farm workers to clear forest and plant cinnamon. The worker receive a monthly wage, food and 50 percent of the crop value after harvest, usually a period of up to 10 years. Some patrons purchase young (1-2 year old) cinnamon plantations.
  - (b) Local People (elit desa) who live outside the Park but enter to develop plantations ranging in size from 4-500 ha in multiple plots and sites. The trees are progressively felled as they mature and after one or two coppice crops, the soil is abandoned and the farmer claims ownership of the abandoned plot.
  - (c) People who live outside the Park (pemukin dikawasan) do not own a house or farm outside and have lived in settlements for many years. Some of these settlements are officially registered as enclaves within the Park and have village status.

- (d) Newcomers (pendatang) from outside the Park, mainly young couples.
- (e) Farm workers (anak ladang) who work for "patrons" and others.

Project interventions range from stricter enforcement against category (a) and (b), and disincentives for categories (d) and alternative income generating opportunities for category (c) and (e).

#### **Adat Institutions and Resource Control**

4. In boundary villages where Adat Institutions are still functioning, they play a significant role in regulating resource use, protecting watershed areas and in West Sumatra, regulating the complex system of communal land tenure. The following description of how the adat institution functions in Lempur, a typical boundary village, in kabupaten Kerinci, provides input in how such institutions could play a key role in biodiversity conservation.
5. In Lempur Village the smallest social unit is described as a *tumbi* (household), several *tumbi* - based on kinship - form a *perut*. A group of *perut* are described as a *kalbu* and several *kalbu* form a *kaum* or clan. A village may contain several *kaums* which are called *kurung kampung*. The *adat* leader of the whole village is called the *Depati Agung*. His decisions are based on consultation, and he is assisted in his tasks by two other *Depatis*. Decisions are only made when all three are present at a meeting. Each *Depati* has specific roles: one deals with the government, the second is responsible for rules and laws and the third is responsible for development activities. *Depatis* are chosen based on their economic standing in the community. Villagers follow *adat* restrictions, mainly for fear of social ostracization from the community. Many *Adat* leaders also play a dual role as government representatives in 'official' village institutions such as council members of the LKMD or as the village head. Most village-level disputes and conflicts are resolved through village meetings chaired by the *Depati*. In Lempur village this traditional institution has played a major role in resolving boundary conflicts with the Park and developing a consensus village-land use plan and zonation which will be enforced by the *Kaum*.
6. In "ethnically" homogenous villages, such traditional institutions can play a major role as intermediaries between Park authorities and villagers in resolving boundary and land use conflicts. In more heterogeneous villages, with new migrants, the more formal government administered institutions and religious institutions assisted by NGOs will play this role. During the first year of project implementation, the local NGOs will assist the implementing institutions identify traditional groups and institutions in the boundary villages to work with in implementing development activities and enforcing conservation agreements.

## **Land Tenure**

7. Very little land near the Park boundary, outside of transmigration sites is titled. In West Sumatran boundary villages land is controlled through a system of communal and individual land tenure, with most wet rice plots being individually titled, whereas tree crop (ladang) lands are controlled by clan ownership. In the other provinces, with the decline in the influence of traditional organizations, coupled with ambiguity of land tenure, there is limited internal village control on outside migrants coming-in and opening new upland fields within the Park boundary. Further work on land tenure systems in the boundary villages will be done during implementation. The project will develop **Community Conservation Agreements** which will give usufruct rights to local communities for buffer zone areas and allow them to prevent outsiders from opening new lands within the Park.

## COMMUNITY PARTICIPATION AND STAKEHOLDER CONSULTATION ACTIVITIES

1. Community and "stakeholder" consultation activities have been an integral part of project preparation, design and will continue to play an important role during project implementation. The project "stakeholders" include the following groups: provincial and local governments; PHPA (Park Management Authority); sectoral technical agencies; forest concession holders; industrial crop estates; local and national NGOs; local communities and traditional organizations.
  
2. The objective of the consultation activities were the following:
  - Inform project stakeholders of the proposed project and its objective;
  - Allow opportunities for information to be presented by stakeholders and communities on issues and problems related to KSNP and its buffer zone;
  - Allow for stakeholder input in ICDP project design from primary stakeholders.

These consultation activities have used a range of participatory techniques to meet these objectives. The following tables provide summary information on these consultation activities, stakeholder involvement, duration and outputs.

**Table 1. Summary Information on Consultation During ICDP Preparation 1992-1993**

Consultation Activity	Stakeholders Involved	Duration	Output
Rapid Rural Appraisal Exercise in 12 Boundary Villages in 4 provinces by DHV-Kepas preparation consultants	Boundary village Communities: W. Sumatra (3 villages); Jambi (4 villages); Bengkulu (4 villages); S.Sumatra (1 village).	November - December 1992, 1 week per village	Village profiles, land use sketch maps, institutional diagrams, transects, identification of people-Park interactions.
Consultation and village profile of 6 KSNP boundary villages by WWF	Boundary village communities in: W. Sumatra (1); S.Sumatra (1); Bengkulu (2); and Jambi (2)	November 1992- February 1993	Identification of adat institutions, and major social and economic issues facing communities in target villages
Consultation meetings with local and National NGOs by NGO facilitator on DHV preparation team	Local NGOs from WARSI network in Jambi, W.Sumatra, S.Sumatra, and Bengkulu; and with representatives of national environmental NGOs	November 1992- March 1993	Consultation meeting in Palembang; consultation meeting in Padang; consultation meeting in Jakarta; 6 NGOs participated in inception report meeting; inter-provincial consultation meeting in Singkarak W.Sumatra; consultation meeting in Jambi; NGO round-table discussion in Jakarta; and background report on NGO role in ICDP.

**Table 2. Consultation Activities During ICDP Preparation 1994-1995**

Consultation/Participation Activity	Stakeholders Involved	Duration	Output
Provincial meeting with principal sectoral and planning agencies to discuss ICDP preparation reports and design	Bappeda I, Forestry, Agriculture, Transmigration, Land Agency, Park Management, Local Government, NGOs	July - September 1993	Feedback from stakeholder on preliminary ICDP design; identification of need for further participatory preparation and phased project implementation approach
Japanese Grant Facility (JGF) to WWF for participatory pilot project identification activities in six boundary villages, base-line survey, database and preparation of manuals	WWF working with 6 boundary communities in: Rantau Kemas, Muara Hemat and Renah Kayu Embun villages (Jambi province); and Sukamerindu, Sungai Ipuh, Talang Arah villages (Bengkulu Province).	July 1994 - June 1995	Data set of biophysical and socio-economic information; analysis and profile of people-Park interaction; implementation model; field guide, and identification of institutions and training of individuals as community organizers for project implementation.
WARSI assistance in strengthening community participation in proposed KSNP ICDP activities	12 local NGOs in four provinces working with communities in four boundary villages: Sungai Kalu (W.Sumatra), Pesisir Bukit (Jambi); Napal Licin (S.Sumatra); and Katenong I (Bengkulu).	July 1994 - June 1995	Strengthening of local NGO network to help implement ICDP activities, survey of local institutions and analysis of potential for ICDP involvement; development of participatory information collection techniques; development of media and information packets for boundary communities on proposed ICDP
ZOPP participatory Planning Workshops in Jambi, West Sumatra, Bengkulu and Sungai Penuh	Bappeda I and II from target Kabupatens, Camat, Head of Dinas agencies for forestry, agriculture, tree crops, livestock, tourism, cottage industry, PHPA, Kanwil Kehutanan, concessionaires, adat leaders, village heads, local NGOs and WWF	August - December 1994	Participatory problem identification and analysis; prioritization target areas & activities for ICDP implementation; identification of implementing agencies & mechanisms for coordinating activities; consensus building between stakeholders holding divergent views.
Review to discuss Regional Impact Assessment (RIA)	Local governments, central government agencies, private sector, local NGOs and WWF.	April-May 1995	Tables from BAPPENAS of 5/9/95 indicating agreement in principle to RIA.

### **Community Consultation Activities with Local NGOs**

3. Community consultation activities have provided invaluable project design input, by allowing participants from representative boundary villages the opportunity to identify problems and issues related to the Park and possible development initiatives that could be implemented by local institutions. Village-level community consultation has been conducted by WWF and WARSI, a local network of conservation and development NGOs. These activities have provide valuable base-line information for the project, as well as have supported local-level institutional development. These consultation activities have been implemented in ten boundary villages in the four provinces. Villages were selected on the basis of high-level of interaction between the community and the Park. Financial support for these activities, including further start-up training and planning (to be completed before April 1996) was provided by JGF.

### **Base-line Socio-economic and Landscape Surveys**

4. WWF has conducted a baseline socio-economic and landscape survey in the following six villages: Rantau Kermas, Muara Imat, Renah Kayu Embun (Jambi Province) and Sukamerindu, Sungei Ipuh, Talang Arah (Bengkulu province). The specific objectives of this activities were as follows:

- To compile an integrated database of physical and socioeconomic information to be used for participatory planning and project monitoring activities;
- To prepare participatory plans in the interaction zone of the survey areas; and
- To test and develop implementation strategies to assist the ICDP.

These activities are being conducted in close collaboration with the local community, local government representatives and Park management authorities.

### **NGO Community Consultation Activities**

5. WARSI is a network of twelve local Sumatra-based NGOs, many of whom are actively assisting local communities with development activities in villages adjacent to the Park. The NGOs are working in boundary villages in the four provinces covering KSNP-(Sungei Manau Atas in W. Sumatra; Napal Licin in S.Sumatra; Katenong in Bengkulu and Pelompek in Jambi). WARSI is assisting the ICDP preparation by undertaking the following activities:

- strengthening the local NGOs so they can actively participate in implementing the ICDP;
- conducting surveys on local institutions and community organizations working in the villages and assessing their potential to participate in the ICDP;
- producing a series of case studies on people-Park interactions and identifying mechanisms for conflict resolution;

- working with local communities in identifying development activities that could be financed by the ICDP;
- developing media materials (posters, videos, pamphlets, newsletter) to provide information to local communities on the ICDP.

### Description of Participatory Techniques

6. WWF and WARSI are using several innovative participatory "tools" to involve boundary communities in ICDP project design. Both groups are using *Participatory Rural Appraisal* (PRA) techniques to involve community members in problem identification, analysis and development of potential ICDP interventions. Some of the tools used are described as follows:

- *Sketch-maps* of the boundary villages drawn by community members, showing village land use, settlements, and Park boundary;
- *Land use Transects* identifying land use linked to topography, soils, agricultural and tree crops, interaction with the Park and problems constraining production;
- *Time Lines* indicating history of village settlement, and introduction of external development interventions including boundary demarcation;
- *Seasonal Calendars* indicating variation in seasonal agricultural activities;
- *Ranking and Trends*: priority ranking exercises to identify possible interventions; and analysis of village development trends in health, transportation, education, commodity production and interaction with Park boundary; and
- *Institutional Diagrams* identifying different institutions working at the village level, their role in decision-making and level of interaction between institutions.

In addition, the local NGOs are working closely with traditional leaders and community groups through regular village-based community meetings to discuss land use near the Park boundary, ways to develop consensus zonation near the boundary, Park protection and implementation of ICDP activities.

### Zopp<sup>1</sup> Planning Workshops

#### 7. Objective

The primary objective of the participatory planning workshops (ZOPP) are the following:

- to train representatives of different stakeholder groups involved in implementing the ICDP in participatory planning methodology;
- to develop a planning document (project planning matrix, plan of operations) utilizing the methodology;
- improve communication and common understanding of the issues among the Dinas agencies to be involved in executing the project; and
- improve community participation by discussing and analyzing problems jointly with community representatives.

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<sup>1</sup> Objective Oriented Project Planning (Ziel Orientierte Projekt Planung).

## **The Process**

8. The Zopp methodology uses participants knowledge and experience, and allows them to express their opinions freely through a system of presenting written information on cards. These cards are then analyzed by the group. The workshop, conducted over a period of four days, and facilitated by an experienced ZOPP facilitator follows a process-oriented approach which builds on group analysis, discussion and consensus. The following steps describe the ZOPP process:

- Step 1: problem analysis and identification of core problem;
- Step 2: identification of causes leading to the problem, developing a problems tree which allows complex relationships to be portrayed;
- Step 3: the problem tree is transformed into an objective tree by translating a negative existing situation into a desired situation in the future by providing several alternative solutions;
- Step 4: solutions are screened using project planning criteria;
- Step 5: involves developing a project planning matrix which shows how the project should be carried out, what is the project goal; how it is proposed to achieve this goal; what external factors influence this; how to measure the extent by which the objectives have been attained; data required for evaluation and cost estimates for project activities.

ZOPP workshops were conducted for ICDP stakeholders in all four provinces. These ZOPP workshops helped bring together the principal "stakeholders" - community members, NGOs, local government agencies, and PHPA- who will be responsible for implementing the project in the future. The project planning matrix described in Box 1 indicates the preliminary results from the ZOPP held in Jambi.

## **Output**

9. The output of the workshop is a project planning matrix that helps decision makers overview the project strategy, indicators for achieving its goal, and the purpose and result of the project. This analyses allows the government technical executing agencies develop a plan of operation which spells out who has to do what, when, where, and how much the activity will cost. The important output of the process is a greater understanding among the different agencies involved, which results in improved coordination and cooperation which is essential for the ICDP project.

**Box 1**

**Project Planning Matrix for ICDP in  
Jambi and South Sumatra 1995-1999  
as formulated by ZOPP workshop participants**

1. *Goal:* ensure the future conservation of biodiversity in KSNP.
2. *Purpose:* communities living near the Park become aware of its existence and the importance of Park protection.
3. *Output:* implement measures that improve community income; increase extension services; improve coordination among government agencies and community groups; increase community participation in boundary demarcation; and improve law enforcement to support Park protection.
4. *Activities:* introduce new improved farming practices; conduct training and provide support for income generation activities; prepare guidelines for communities to participate in boundary demarcation activities; improve bottom-up planning process, improve skills of extension personnel, etc.
5. *Indicators:* reduction in numbers of Park encroachers, increased income of target households, numbers of households involved in boundary demarcation, etc.
6. *Input:* resources provided include: APBN (reforestation funds) APBN, APBD I, APBD II, GEF support

**Participation during Project Implementation**

10. Based on the experience gained through participatory project preparation the ICDP project will continue to use the following participatory techniques during project implementation:

- NGO-assisted training of boundary communities in PRA techniques to conduct village-based analysis and design of ICDP development interventions financed by the project;
- preparation of village-level maps, delineating land use and zonation based on consultation and participatory field-based sketch mapping. These maps will provide

## INDICATIVE DEVELOPMENT ACTIVITIES

A number of candidate development activities were proposed by government officials, and by the project preparation team. These activities fall into the categories of agriculture, forestry, small enterprise/industry, social welfare, tourism, and public village infrastructure. These indicative development activities are listed and briefly described below:

### AGRICULTURE

1. **Cassia vera Intensification:** To increase returns and sustainability of this profitable tree crop through selective breeding, better agronomic practices, and inter-cropping with other tree or food crops.
2. **Tea:** To establish smallholder tea estates on unused land for poor or landless families. This concept has already been proven successful in Kabupaten Solok, West Sumatra.
3. **Vegetable Integrated Pest Management:** To decrease the use of environmentally destructive pesticides in temperate vegetable growing areas around the Park through introduction of IPM techniques.
4. **Vanilla:** To introduce this high value crop to agro-ecologically suitable areas. Vanilla is already being grown successfully on a small scale in Kabupaten Kerinci.
5. **Improved Jungle Rubber:** To increase the productivity and biodiversity value of this low intensity agricultural system found extensively in the lowlands to the east of the Park. Initial exploratory research on this system has been conducted by French scientists.
6. **Cage fish culture:** To introduce these highly productive systems to villages that have an adequate source of flowing water, and a market for the fish. Cage culture is already established at the outlet of Lake Kerinci.
7. **Fish Ponds:** To introduce these relatively low input protein production systems to villages that do not have access to fish from rivers or lakes. Fish production has the potential to reduce hunting pressure on wild animal populations inside and outside the Park.
8. **Small Ruminants:** To introduce goats to poor families as a source of protein and income.
9. **Bee Keeping:** To introduce the skill and inputs of bee keeping to target groups that have small plots of land. Honey is a high value, easily transported produce that requires little land for its production.

## FORESTRY

10. Agroforestry: To introduce agroforestry systems based on cassiavera or other tree crops to the project area. ICRAF has already begun preliminary agroforestry research near the Park in West Sumatra.
11. Community Forestry: To introduce community forests as one type of village land use. WWF has already pioneered this approach in Keluru Village in Kabupaten Kerinci. It has the dual benefit of providing the community with fuel wood and timber, as well as forming a buffer zone on the Park boundary.
12. Nurseries: To assist target groups or individuals to establish village nurseries for the following commercial purposes: sale of fruit or timber tree seedlings to fellow villagers; sale of palm tree seedlings to PHPA for marking the Park boundary; sale of seedlings to Dinas PKT for use in greening and reforestation.
13. Rattan Plantations: To explore the possibility of establishing village rattan plantations to replace rattan that is currently being harvested in the Park. Initial research by Stephen F. Siebert of the University of Montana indicates that the clustering rattan, *Calamus exiles* could be grown sustainably in the project area because this species resprouts after harvesting. The small canes are used primarily for handicrafts.
14. Turpentine Tapping: To increase the practice of tapping pine trees for resin for sale to turpentine factories. Many pines have already been planted for reforestation, and demand for turpentine exceeds the supply of resin.

## SMALL ENTERPRISES/INDUSTRY

15. Rattan Handicrafts: To introduce rattan handicrafts more widely in the project area, and expand the range of products and markets. this builds on an existing handicraft tradition.
16. Village Industries: To explore the possibility of introducing small village industries such as black-smithing or simple furniture making.
17. Agricultural Processing: To explore the possibility of introducing simple agriculture processing techniques to add value to cassiavera or other products.

## **SOCIAL**

18. Scholarships: To provide scholarships for children in SMA villages to attend school in nearby towns or cities to provide them with a better education, and to encourage them to move away from their village when they reach adulthood.

19. Land Titling: To assist selected villagers to obtain government ownership certificates for their land. This would only be done in exceptional circumstances as titling is an expensive and time-consuming process.

## **TOURISM**

20. Hospitality Training: To train village women in the cooking, sanitation, language and hospitality needed to attract international visitors to their homes for a remote homestay experience. WWF has already been successful in providing this training in the village from which visitors begin the ascent of the Mount Kerinci.

21. Guide Training: to provide young men with the necessary language, intercultural, and nature interpretation skills to guide foreign visitors into the Park.

## **PUBLIC VILLAGE INFRASTRUCTURE**

22. Access Roads: to build light traffic access roads to villages close to the existing road network. Prior to approval, these roads would have to be evaluated for possible negative impacts on the Park, through AMDAL process.

23. Small Scale Irrigation Systems: To construct simple irrigation systems with village labor to increase rice production in villages that border a stream or river.

24. Drinking Water Supply Systems: To provide a reliable and clear source of drinking water to the entire village to improve sanitation and reduce the amount of time needed to obtain water.

## **THE SELECTION PROCESS**

25. The villages assisted by the project will receive a three year cycle of intervention that includes surveys, situation analysis, facilitation, planning, implementation, and monitoring. These steps will be repeated during each year of the cycle as a learning experience for the villagers, and to allow mid-course corrections to be made. All sub-components would be integrated into this process.

26. The village intervention process is guided by the Kabupaten Coordinator in consultation with the Camat. Activity proposals would be reviewed through the standard GOI process that includes the LKMD at the village level and the UDKP at the Kabupaten level before being submitted to the Kabupaten Coordinator. Facilitation will be done by LCOs and local NGO staff, and the Community Participation Advisor and the WWF supervisor would provide periodic assistance. Kabupaten technical agencies would implement development activities. The TAT would assist village leaders and target groups to write activity proposals in the DUP format.

**INDONESIA**  
**Kerinci Seblat Integrated Conservation and Development Project**  
**Proposed Technical Assistance**

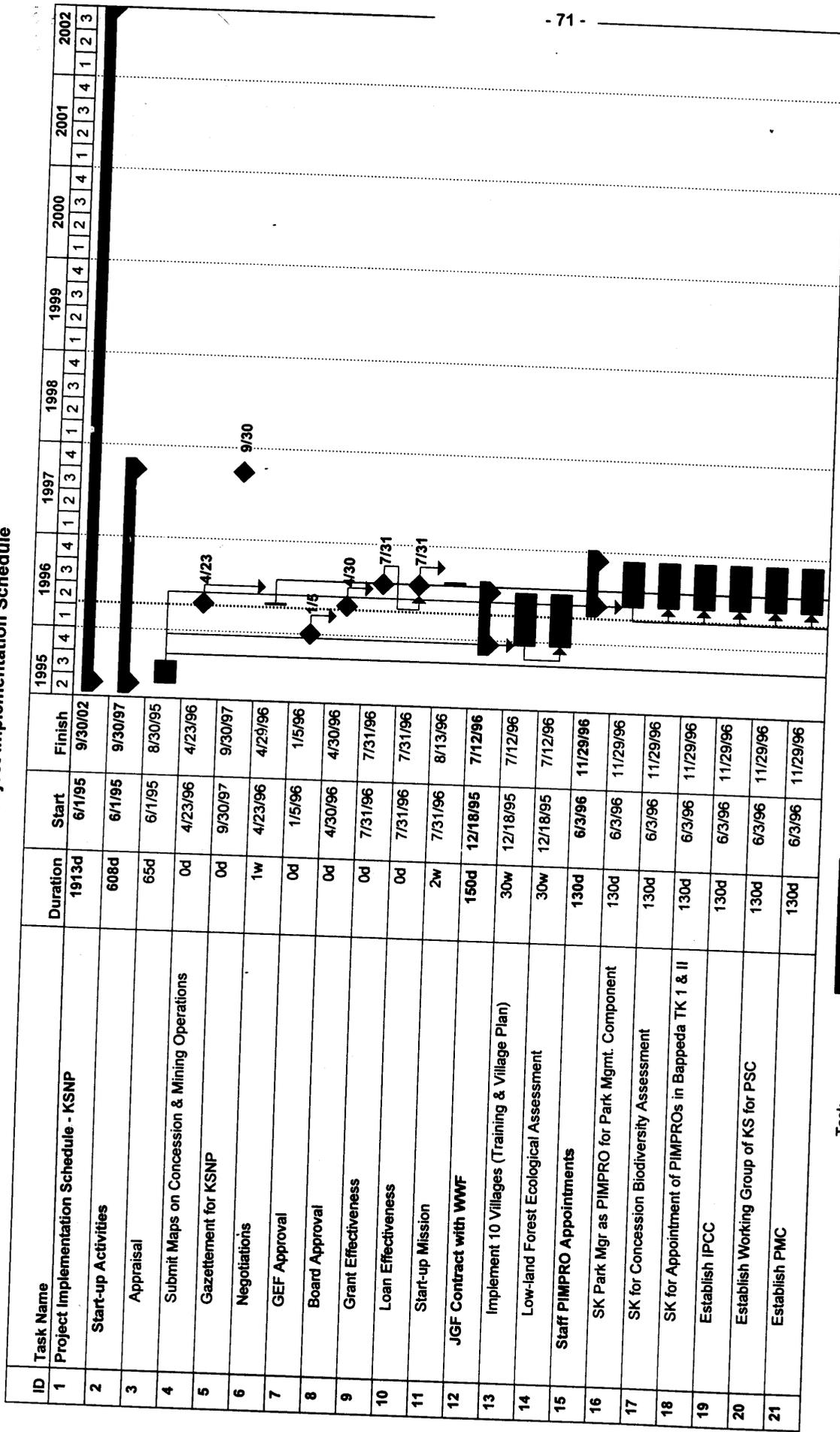
List of TA Contract/Activity	Purpose/Objectives	Implementing Agency	Estimated		Status of TOR (Date) Prepared Expected	Short List (Date) Prepared Expected	Standard Con- tract Prepared (Y/N)	Responsibility for Supervision RSI HQ
			Total Cost* (US\$'000)	No. of Staff/month				
<b>A. Preparation/</b>								
<b>Implementation Support</b>								
(a) Park Management	Assist in the preparation & implementation of a Park Management plan.	PHPA	1,881 448	302 (foreign) 214 (local)	12/94 12/94			
(b) Area/Village Devt.	Assist selected villages in resource stabilization and income generation.	Kabupaten/ Camat/LKMD	Lump sum = 3,440 (NGOs/LCOs)		1/96			
(i) Village intervention process			1,336 1,581	186 (foreign) 334 (local)	12/94			
(ii) Regional and spatial planning	Integration of park planning with regional/provincial planning.	BAPPEDA I & II	144 781	9 (foreign) 152 (local)	3/95 3/95			
(c) Concession Biodiversity Assessment	Assist in boundary delineation and provision of inspection service, incl. training.	KANWIL Forestry	98	17 (foreign)	1/96			
(d) Monitoring & Evaluation	Impact assessment, analysis, & management improvement.	PHPA KANWIL For. BAPPEDAS	293 355	16 (foreign) 83 (local)	12/94	1/96		
<b>B. Institutional Capacity Building</b>								
The above consultant services are completely intertwined with institutional capacity building.								
<b>C. Policy Advice/Studies</b>								
10 percent of the consultant services provided under Preparation/Implementation Support should be regarded as improvement of policies and regulations.								
Kerinci Trust Fund Study		PHPA		Lump sum = 101				4/96
Interprovincial Spatial Plan		Bappeda I & II		Lump sum = 152				4/96
Ecotourism Study		PHPA		Lump sum = 51				4/96
Kubu Development		Social Dept.		Lump sum = 522				4/96
Tourism Devt. Planning		PHPA		Lump sum = 10				4/96

\* Including contingencies.

## Technical Assistance and Studies by Component and Lead Agency

	Central Lead Agency	Requirements (Staffmonth)	Estimated Costs (US\$'000)
<b><i>Technical Assistance</i></b>			
<b>Central Coordinating Consultants</b>	PHPA (Working Group PSC)	72	620
<b>Park Management Component</b>	MoFr - PHPA		
Snr. Park Planner/Mgt. Specialist		39	736
Park & Wildlife Enforcement Officer		36	681
Curriculum Development Specialist		2	11
Writers (two)		10	45
Park Mgt. Officer		60	27
Education Extension Officer		60	27
Training Officer		60	27
Conservation Officer		65	77
Elephant Specialist		6	112
Communications Specialist		24	449
Ecologist		60	27
Sociologist		94	110
<b>Subtotal</b>		<b>516</b>	<b>2,329</b>
<b>Area/Village Development Component</b>	MoHA - BANGDA		
Rural Development Advisor/Team Leader		28	521
Assistant Team Leader		52	277
Agricultural Advisor		52	270
Community Forestry Specialist		28	521
Training Advisor		40	210
Community Participation Advisor		52	270
Small Enterprise Advisors (two)		78	17
Work Engineers (two)		126	663
Regional Planner		9	144
Planning Advisors (four)		152	781
Accountant		64	168
Village Facilitating NGOs	MoFr - PHPA	-	3,440
<b>Subtotal</b>		<b>681</b>	<b>7,282</b>
<b>Concession Biodiversity Assessment Component</b>	MoFr - PA		
Trainer in Concession Management		17	98
<b>Monitoring &amp; Evaluation Component</b>	MoHA - BANGDA		
Monitoring & Evaluation Specialist		16	293
MIS Specialist		9	46
Evaluation Staff		8	2
M&E and GIS Consultant		66	355
<b>Subtotal</b>		<b>99</b>	<b>696</b>
<b>TOTAL TECHNICAL ASSISTANCE</b>		<b>1,385</b>	<b>11,025</b>
<b><i>Studies</i></b>			
<b>Park Management Component</b>	MoFr - PHPA		
Tourism Development Planning		-	10
<b>Area/Village Development Component</b>			
Kerinci Trust Fund Study	MoFr - PHPA	-	101
Interprovincial Spatial Plan	MoHA - BANGDA	-	152
Ecotourism Study	MoFr - PHPA	-	51
Kubu Development	MoHA - BANGDA	-	522
<b>TOTAL STUDIES</b>		<b>-</b>	<b>836</b>

# KSNP Project Implementation Schedule



Task: [Bar]

Progress: [Bar]

Milestone: [Diamond]

Summary: [Bar]

Rolled Up Task: [Bar]

Rolled Up Milestone: [Diamond]

Rolled Up Progress: [Bar]



