PAPUA NEW GUINEA FORESTRY AND CONSERVATION PROJECT

Project Appraisal Document

East Asia and Pacific Region
Rural Development and Natural Resources Sector Unit

		Rurai Dev	elopment and	Natural Res	ources Sector	Unit			
Date: October 12, 2001				Team L	Team Leader: James J. Douglas				
Country Manager/Director: Klaus Rohland				Sector I	Director: Ma	rk D. Wilson	1		
Project ID: P004398				Sector(s): AT - Fore	stry			
Lending Instrum	ent: Specific	c Investment l	Loan (SIL)	Theme(s):				
P				Poverty	Poverty Targeted Intervention: Y				
Global Suppleme	ental ID: P00)4345		Team L	eader: James	J. Douglas			
Focal Area: B - H	Biodiversity			Sector N	Manager/Dire	ector: Mark	D. Wilson		
Supplement Fully	y Blended?	No		Sector(s): AT - Fore	stry			
Program Financ	ing Data								
[X] Loan [] Credit	[X] Grant	[] Gua	arantee	[] Other:				
For Loans/Cred	its/Others:								
Amount (US\$m)	: 17.35 millio	on equivalent/	SDR 10.49 m	illion equiva	lent				
Proposed Terms	e (IRPN): Fix	vad-Spraad L	oan (ESL)						
Grace period (ye		ked-opiead L	oan (i ol)	Voore to	maturity: 20	1			
Commitment fee	•				to maturity: 20 end fee on Bank loan: 100.00%				
Financing Plan (Source		FIOIIL E	Local Foreign Total				
BORROWER/RE		Jource			0.01		0.00	0.01	
IBRD	CH IENI				5.86	1	1.49	17.35	
BORROWING A	CENCY				3.86	'	1.07	4.93	
GLOBAL ENVIR		FACILITY			4.12	1	2.88	17.00	
Total:	CONVILIVI	TACILIT I			13.85		25.44	39.29	
Borrower/Recip	ient: GOPN	[G			10.00				
Responsible ag			//ENVIRONI	MENT: CON	ISERVATIO	N TRUST FU	JND		
National Forest A	•			•				Planning	
	• • • • • • • • • • • • • • • • • • • •			,	1	•	1	C	
Estimated disbu	ursements (Bank FY/US	\$m):						
FY	2002	2003	2004	2005	2006	2007	2008		
Annual	1.60	3.20	2.80	4.30	3.40	1.60	0.50		
Cumulative	1.60	4.80	7.60	11.90	15.30	16.90	17.40		

06/30/2008

OCS PAD Form: Rev. March, 2000

Project implementation period: 6 years

Expected effectiveness date: 03/31/2002 Expected closing date:

A. Project Development Objective

1. Project development objective: (see Annex 1)

Background:

Papua New Guinea (PNG) contains one of the world's four remaining significant tropical rainforest wildernesses. These closed natural forests cover 36 million ha, or 77% of PNG's total land area. High altitude cloud and montane forests descend to lowland mixed forest and mangroves near the coast, supporting approximately 200 species of mammals, 15,000-20,000 plant species, 1,500 tree species and 750 bird species (53% of which are endemic and including 90% of the world's Birds-of-Paradise). PNG's forests are home to the world's largest butterfly, largest orchid, longest lizard, largest pigeon and smallest parrots. Collectively, all this constitutes one of the richest reserves of biodiversity harbored in an intact, contiguous tropical forest.

Forests provide the basis of livelihood and cultural life to the 80% of Papua New Guineans who still live in rural communities. Local clans/tribal groups own essentially all forested land under customary title. No major development activity can occur on a clan's land without their consent. However, major social and economic disruptions have occurred in the recent past in areas where large areas of forest were destroyed--primarily from exploitative, uncontrolled logging operations. In some cases the resulting land degradation seems permanent.

PNG's constitution and its national policy commit the country to sustainable management of its forest resources. However, in the past two decades sustainability has been compromised by major financial and operational malfeasance. The 1989 Barnett Commission of Inquiry into the Papua New Guinea Forestry Sector concluded that logging practices were out of control, causing irreversible damage to forests, land, and local communities; while diminishing biodiversity and other environmental values. To reverse these trends, in 1991, the GoPNG initiated the National Forest and Conservation Action Program, in conjunction with the Bank and other donors. Subsequently, the Forestry Act (1991; amended 1993) was enacted to facilitate establishment of a sustainable forest industry.

The question might well be posed: why an investment project in forests in PNG now? Until now, the Bank has aided reform of the forest sector through a series of grant based activities, and conditionalities attached to structural adjustment lending. Reforms already implemented include: surveillance of log exports, adoption of new forest sustainability and logging code guidelines, a taxation structure intended to provide improved resource revenue capture for the government and landowners, and enhanced legislative protection for the independent operations of the Forestry Board. These reforms provide the enabling framework within which the current project is proposed. A number of the problems that have recently appeared in the legislative and regulatory base are being addressed under structural adjustment conditionality associated with the present implementation of the Governance Promotion Adjustment Loan (GPAL). Example the GPAL includes conditions which require: (i) a review of applications that are presently being processed for timber harvesting in terms of due diligence and legal compliance; (ii) an initial review of the forest revenue and royalty regime; (iii) changes to the Forestry Act and Regulations to enhance the independence of the Forestry Board to introduce regulations for forest clearing associated with the development of infrastructure (including roads) and to ensure non-commercial disclosure. However, it is apparent that some major changes at the field level in PNG - especially in the working of the relationship between the logging industry, the Forest Management Authority, and landowners are now needed. These will need technical and financial support, in addition to continued rigorous attention to policy and institutional reform.

This argument can be better understood if the forest resource situation in PNG is put into a broader political economy context. Very briefly, the essential development problem in PNG can be summarized in two premises:

- Government delivery of services especially to rural communities which in this country predominate in the population, and who also are predominantly forest dwellers has failed to keep up with the demands made upon it. Poverty levels and related social indicators, as discussed in the Bank's recent poverty report, suggest that a far larger proportion of the PNG population is living in substandard conditions than should be the case with its level of average per capita income;
- The management and mobilization of PNG's main source of wealth natural resources has been problematical, and afflicted by major problems of governance. This has resulted in high levels of social conflict, and environmental damage, associated with resource exploitation.

Under these circumstances, priority must be given to developing the probity as well as the capability of political and bureaucratic institutions, and the transparency of resource decision-making. Especially in the case of PNG, where customary title is the predominant form of ownership of resources, this must involve local communities effectively in the decisions made, and in the management of subsequent developments. At least as much attention must be paid to reducing the grip of centralized bureaucracies on resource and related decisions, as to more standard capacity building within those bureaucracies. Privatization, reviewing and in some cases re-inventing incentive structures, facilitating increased local control over what happens to resources, and developing the capacities of landowners to participate effectively in that process, will all play an important part in a successful outcome, and all are reflected in the design of this project.

For these reasons, the design of the project is more complex than a conventional investment in capacity building and technical assistance within an existing institutional framework: essentially, it is an attempt to go well beyond the existing policy and institutional framework, which has become dysfunctional. For the same reason, the components of the project will be much more interdependent that might otherwise be the case. Environmental assessment of resource projects cannot proceed, as it has attempted to do in the past, independently of the process of large forest resource project investment appraisal and approval, and the project will need to closely tie the environmental assessment activities it will sponsor, to the work it will do in sustainable forest management which has a significant focus on the nature of forest management agreements and their monitoring and control. And, major improvements in environmental assessment and sustainable forest management cannot happen in PNG unless landowners become much better informed about their resource use options, and are then better able to reach equitable and logical agreement with each other, via improved landowner decision making processes, which the project will also finance. Finally, a major ingredient in these improved decisions will be enhanced access by landowner groups to investment funds, which could support alternatives to large scale and exploitive logging operations which, in the past, have often been the only financially significant option offered landowners. The proposed Conservation Trust Fund, to be financed by the GEF and other donors, under this project, is a mechanism with the potential to achieve this broadening of options and choices for local communities in PNG.

2. Global objective: (see Annex 1)

The global environmental objective is to improve management and conservation of important forest ecosystems in one of the world's most biodiversity-rich regions. Over the long-term, this will maintain direct and indirect uses (e.g. watershed protection), as well as existence and option values that are associated with functional tropical ecosystems and intact, unique biological resources. Expected project outcomes include: (i) establishment of a number of widespread, permanent, community-driven conservation areas that broadly cover PNG's biodiversity; (ii) maintenance of regenerating natural forest cover in production and community forest areas; (iii) conservation reserves within logging sites; (iv) establishment of legal mechanisms and a Conservation Trust Fund (CTF) able to support landowner-driven conservation and sustainable-use activities; (v) increased landowner participation in, and benefits from, design and operation of sustainable-use and conservation activities. Indicators for measuring achievements are presented in Annex 1.

3. Key performance indicators: (see Annex 1)

A key objective of the Forestry and Conservation Project will be **to strengthen the capacity of local people, government and non-governmental entities to more sustainably manage and conserve PNG's forest resources.** This should result in the long-term maintenance of biodiversity and an increase in the well-being of forest owners. Activities will: (i) promote and implement more participatory processes for landowner involvement in forest management; (ii) improve environmental practices and sustainability of commercial forest harvests; (iii) develop a policy basis for a more ecologically sustainable community forestry sector based upon small to medium scale production; (iv) improve enforcement of environmental protection legislation; and (v) implement a strategy and provide financing to promote land group based conservation areas. Conservation objectives will be primarily achieved by empowering landowners to organize, decide upon and access financing for, small-scale sustained use forest development activities that are coupled to protected area establishment and maintenance.

Another key objective of the project will be to improve the quality of life of people living at the local level. Empowering landowners to better conserve, sustainably utilize and benefit from biodiversity on their lands is a national priority for PNG and identified as such in several government strategies including the GEF-funded country study. Key performance indicators for the mid-project review will include whether: (i) pilot participatory forest decision-making processes are adopted; (ii) required forest management methodology policies are put in place; (iii) demonstration land group--based conservation projects are being satisfactorily implemented; and (iv) the Conservation Trust Fund (CTF) is operating effectively. End of project implementation indicators will primarily evaluate whether participatory processes and land group-based conservation are expanding and whether forestry management activities have become more environmentally sustainable. Independent inspection of forest harvest activities will monitor improvements in forest harvest. Conservation goals will be measured by trends in project numbers, the number of landowners and landowner groups designating their lands as conservation areas, and the area of coverage of designated protected area lands under conservation management.

The Bank's approach to forests in PNG must deal as comprehensively as possible with major environmental and social objectives; since forests are such an important economic, social and cultural element of the nation. The project establishes mechanisms and processes to allow considered forest management and conservation decisions to be made by government and landowners. Highly participatory and consultative processes are required. Major design implications for the project result from these observations. Objectives of this scale and complexity will demand an adaptive management approach, which is innovative and evolutionary. Provided a learning approach is taken, project outcomes will have impacts

that reach far beyond routine forest objectives—including making progress in addressing lack of Government service delivery to a largely traditional clan-based society, one factor which has caused uncontrolled and destructive forest resource exploitation. Critical choices will need to be made, at various points, to ensure that the basic objectives are being pursued—even if this requires re-defining activities. Supervision and monitoring of this project will need to keep in mind the reality of this process.

B. Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1) Document number: 19590-PNG Date of latest CAS discussion: December 9, 1999

The overarching goal of the PNG CAS is to support a concerted effort to reduce poverty and improve the quality of life of Papua New Guineans. The primary objective for this CAS period is to assist PNG in strengthening the foundation for a capable state that can be responsive to its people by addressing human and economic development challenges in a transparent and accountable manner. The two basic strategies for achievement of these goals are improvements in the governance framework for sustainable development, and enhanced rural development. The specific strategy for environment, forestry and conservation within these broad approaches is to follow up policy, regulatory and monitoring reforms introduced under Bank technical assistance and adjustment measures in recent years with field based investments aimed at enhancing the environmental sustainability of PNG's forest goods and services, and the benefits of forests to the resource owners.

1a. Global Operational strategy/Program objective addressed by the project:

PNG ratified the Convention on Biological Diversity in 1993. The project is consistent with the GEF Operational Strategy, particularly the Operational Program on Forest Ecosystems. It focuses on *in situ* conservation in one of the world's largest remaining tracts of rain forests, an area rich in species and endemics, that has been identified as one of the 200 most important ecoregions globally. The project supports conservation and sustainable use, and more equitable sharing of benefits, by improving forest management, strengthening independent monitoring and providing resources to allow areas of high biodiversity to be set aside as protected areas. It will provide local landowners with the information, skills and resources to choose alternative development options that encourage biodiversity conservation.

Empowering landowners to conserve, sustainably utilize and benefit from biodiversity on their lands is a PNG national priority and identified as such in several government strategies including the GEF-funded country study. The project is consistent with Conference of the Parties to the Convention on Biodiversity (COP) guidance as it focuses on conservation and sustainable use of critical ecosystems and threatened endemic species and supports the active involvement of local communities as managers and beneficiaries of better forest management. It responds to COP3 guidance by promoting conservation and sustainable use through capacity building, economic incentives and alternative livelihood opportunities for local communities; and by incorporating biodiversity issues and improving management in the forestry sector. In line with COP4 guidance the project takes an ecosystem approach to maximize biodiversity conservation in a range of forest habitats that will span altitudinal gradients and represent different management regimes.

2. Main sector issues and Government strategy:

Important forest sector issues considered in the project design include:

- · Virtually all PNG forested land is under customary tenure. Due to a number of constraints, many forest landowners see the sale of these resources as the only way to improve living standards.
- Over the last decade, foreign-owned and often poorly managed industrial-scale logging, based upon raw log exports, has been virtually the only forest management related activities pursued in the

country.

- Inadequacies in government forest management infrastructure still hamper effective forest monitoring and enforcement efforts, and cause continuing irregularities in the planning, granting and operation of many commercial forest timber areas. The Forest Act and supporting mechanisms are at times viewed as an obstacle, rather than a process to ensure equitable and sustainable allocation and implementation of commercial logging operations.
- Although the downturn in Asian timber markets has adversely affected production of forestry, it is slowly recovering. Community-based, sustainable forest management efforts are, however, increasing. Yet the GoPNG has not fully formulated a coherent strategy to support a broader forest management sector with community-based small- and medium-scale forest development.
- Environmental assessment and monitoring, to ensure adequate forest resource protection and environmental management, remains largely unrealized, hampered by lack of capacity and an ambiguous legislative and regulatory regime for screening and monitoring of forest development activities.
- The existing protected area network does not cover PNG's full diversity of habitats. PNG lacks a policy and institutional framework to support landowner conservation initiatives and conservation areas on privately-owned clan lands.

Important government strategy issues that were considered in the project design include:

- The 1994 review of the National Forestry and Conservation Action Program (NFCAP) recommended an increased focus on landowner-targeted mechanisms to pursue sustainable forestry and conservation.
- · Under the World Bank's 1995 Economic Recovery Program (ERP) loan, the GoPNG solidified its commitment to sustainable forestry.
- In 1995, the Forest Authority (FA) adopted (a) a Logging Code of Practices designed to minimize environmental disturbance and (b) a new forest permit system to replace the fragmented and complicated set of individual timber agreements.
- GoPNG is reexamining its forest development strategy to ensure more equitable sharing of benefits among landowners, including having recently completed contracted studies on landowner benefits and domestic processing. The FA has requested World Bank assistance in responding to the downturn in commercial forestry by providing assistance in broadening the type and scope of forest management activities, including capitalizing on the benefits of standing forests. GoPNG has continued to make improved forest management an important part of its overall development strategy.

3. Sector issues to be addressed by the project and strategic choices:

A primary focus of the project is to support mechanisms which allow landholders to make more informed, sustainable decisions regarding forest usage, selecting from a broad range of options, including smaller scale, sustainable community forest operations. A second focus is to improve the performance of existing commercial forest operations by creating incentives and field capabilities to ensure that operators are adhering to existing forest legislation. A third priority will be to implement a nation-wide conservation area program and sustained-use strategy by creating the necessary legal and financial frameworks, and generating investment in conservation-based alternatives to large-scale logging. Environmental assessment and monitoring will be strengthened through development of institutional and community-based mandates and capability for effective environmental assessment and monitoring.

Two major strategic decisions were made in conceptualizing this project:

- (i) Major conditionality to support implementation of the project was included and implemented under the framework of the Bank's first structural adjustment loan, the Economic Recovery Program. Additional measures have been included in the Governance Promotion Adjustment Loan, and within conditionality for this project.
- (ii) Participatory and non-governmental mechanisms, as well as more traditional government agency institution building were chosen as the means of pursuing sustained forest uses and forest conservation. This broader approach allows the project to address crosscutting issues of poverty alleviation and participation more effectively, and recognizes the need to better balance larger and smaller scale forest operations. Development of landowner-based institutions and mechanisms, and a Conservation Trust Fund (managed and financed independent of government) will be key project elements.

C. Project Description Summary

1. Project components (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

The project has four major components, which are outlined below Component 1 will be financed in parallel by IBRD and GEF; component 2 by the GEF alone; component 3 by IBRD alone, and component 4 in parallel by IBRD and GEF.

Component 1: Landowner Forest Decision-Making—A process will be developed and implemented which allows landowners to become more aware of options for use of their forests, and to pursue their choice. The project establishes a Landowner Decision and Organization Unit (LDOU) which will carry out education campaigns regarding forest management and conservation, providing information which landowners may consider to make more informed forest utilization decisions. Legal mechanisms will be established to give recognition and protection to local clan land and forest use decisions. Landowner capacity to select appropriate and sustainable forest operations (and to benefit equitably from those choices) will be developed. Awareness and capability to pursue conservation-based activities in place of extractive activities will be developed. There will be three sub-components:

- (i) **Development Options Study**—Consultative activities will be fielded to improve landowner access to information and discussions of development options <u>prior</u> to any land-use decisions, based on a design that optimally involves all stakeholders in development option consideration and decision-making. A Development Option Study (DOS) activity by LDOU in a given forest area will involve lengthy participatory discussions and education activities regarding forest management and conservation. Should landowners desire, DOS would continue by helping to facilitate forest management arrangements, carry out initial environmental planning, provide linkages to technical expertise; and, through inputs under this project's other components, implement conservation projects and/or forest management activities of various types and scales.
- (ii) Strengthening Landowner Representative Mechanisms—Improved processes and systems for landowner representation and organization to allow improved resource decision-making will be developed and implemented. A major input will be a proposed Land Group Summit to share and evaluate experiences and facilitate discussion of technical and investment needs. Major efforts will be made to produce and disseminate informational products regarding various options for

landowner organizational structures. Improved landowner organizational capacity will support the landowner component and overall project implementation.

(iii) Land-Group Based Conservation and Resource Management Areas—The project through the LDOU will assist policy and legislative development to ensure the legal basis for community-initiated Conservation Management Areas (CMAs) that link small-scale ecologically sustainable development activities with explicit habitat protection. Landowner initiated conservation areas on customary land will be encouraged and several CMA areas will be established by the LDOU with OEC. Project activities include developing standards for managing CMAs, developing appropriate institutional capacity within OEC to assist groups to establish CMAs, and assisting communities to access financing to support their conservation activities.

Component 2: Conservation Trust Fund—With GEF support, a Conservation Trust Fund (CTF) will be established, the objective of which is to promote the conservation of forest biological diversity of global significance. The CTF will achieve this objective by providing an accessible and sustainable in-country source of funding for conservation-oriented forest resource use options in forest areas of high biodiversity value. The ultimate goal is to develop a financing mechanism that can support a comprehensive range of national conservation activities (including both forest and marine). It is intended that the CTF should become an endowment fund that will attract resources from a variety of sources and whose investment earnings will be used to finance conservation-oriented sustainable development initiatives. In the context of this project, the CTF will support implement the Landowner Forest Decision-Making Component by providing a source of funds to support landowners who are committed to pursuing conservation-orientated resource use options in forest areas of high biodiversity value, as an alternative to less conservation-friendly options, such as commercial logging. The Fund will be a non-government entity that is governed by a multi-stakeholder Management Board, which will supervise the appointment and activities of a professional Management Unit. Funding support will focus at the landowner and Incorporated Land Group (ILG) levels, using NGOs as well as government agencies as service providers to support conservation and effective stewardship of forest resources. During its Commencement Phase, and continuing through the planned Endowment Phase, the CTF Board and management staff will develop and implement an aggressive fund mobilization strategy to obtain concrete additional commitments for co-financing both the establishment of the endowment and its capital growth (Annex 12 contains further CTF design details).

The CTF will be developed in three activity phases: a preliminary Establishment Phase, a three-year Commencement Phase; and; if this is seen to be successful and mobilizes substantial capital contributions, an Endowment Phase. Substantial progress in establishing the CTF as a legal entity and organizational reality has already been made during project preparation. Specifically: (i) the CTF has been formally incorporated and legally registered in PNG as a Trust; (ii) the Board (governing body) has been established; (iii) the Operational Manual has been developed which defines/clarifies essential procedures and operational criteria; and (iv) cooperative working relationships with key governmental bodies have been initiated. The CTF's three operational phases are as follows:

(i) Establishment — Further activities to establish and launch the CTF program will benefit from the full support of the PMU. Activities during this phase will include: contracting for renovation and improvement of the CTF offices; establishment of these offices; procurement of vehicles, computers, office equipment and furnishings; and employment of an international organization as Trust Fund Advisor and other short term technical assistance required to commence the commencement phase activities outlined below. Pre-project funding will be used to initiate these

activities prior to project effectiveness.

- (ii) Commencement The CTF program of biodiversity conservation grant-making will be launched during this phase. The CTF will initially finance a portfolio of biodiversity conservation-oriented demonstration project grants on a sinking-fund basis. To do this, the CTF Board will hire qualified staff and contract the technical support required to professionally review and approve conservation grant applications; develop and adopt an investment management plan, and select investment managers; and establish financial audit and control systems to international standards. Project selection criteria have been adopted by the CTF Steering Committee and incorporated into an Operations Manual that has been reviewed and approved by the Bank. The Fund will support projects whose primary goal is to conserve forest biodiversity of global significance and that also offer sustainable, long-term development benefits that will motivate the local people not to engage in unsustainable resource exploitation, particularly industrial-scale logging. It will also seek projects that adopt innovative approaches to conservation and demonstrate potentially replicable models.
- (iii) **Endowment** The GEF will help to launch the CTF's endowment phase by making a capital contribution of up to \$10 million to the endowment fund <u>if</u> the following performance benchmarks have been achieved at the end of the Commencement Phase: (a) a minimum of 1:1 match for GEF endowment funds in relation to funds contributed or pledges to the CTF in written commitments from other donors; (b) an independent evaluation of the sub-projects funded during the Commencement Phase confirms that, overall, they are likely to promote the conservation of forest biodiversity of global significance and are probably sustainable. This evaluation will be provided to the GEF Secretariat prior to conditioned released of funds for the Endowment Phase; (c) the evaluation confirms that the CTF project identification, grant award and fund raising systems are all performing efficiently; and (d) all financial audits of CTF operations are clear and acceptable.

The CTF's investment strategy in the Endowment Phase will be significantly shaped by lessons learned during the Commencement Phase. The Fund Management Unit, with support from technical advisors as appropriate, will carry out a range of administrative activities to support the grant-making programs. The unit will develop a strong overall monitoring and evaluation scheme for the program, build monitoring activities into each grant, monitor Fund financial management through an annual audit that will meet international standards, monitor compliance with donor information and reporting requirements; and prepare and disseminate annual progress and lessons learned reports that document monitoring and evaluation results. The Board will receive and review periodic reports on the use of GEF funds to ensure that the GEF funds and earnings are supporting only GEF-eligible activities. Costs during the Commencement Phase will be met from GEF grant assistance, but through the Endowment Phase will increasingly be paid for by investment income from the endowment.

Conservation Trust Fund Co-financing Strategy. Provided the benchmarks for establishing the endowment fund are met, the GEF will contribute to the endowment on a dollar-for-dollar basis with other grant funds, up to a maximum amount of US\$10 million. The objective of the CTF's initial fund-raising strategy during the Commencement Phase will be to mobilize sufficient capital to trigger the entire GEF commitment, or at least a significant share of it. This will provide sufficient capital to finance a conservation grant-making program that will sustainably conserve substantial forest areas of global significance entirely from the fund's interest earnings and capital appreciation. Based on an initial review of nation-wide conservation needs and potential, and the associated resource requirements, the CTF's eventual target is an endowment of approximately US\$30 million. Preliminary discussions with potential endowment co-financiers have generated a potential list of sources: PNG Government and private sector;

other public sources (e.g., bilateral and multilateral donor agencies); other international donor agencies; and other innovative funding sources, such as carbon sequestration initiatives and environmental levies. However, these funds are unlikely to be contributed until after the CTF is functioning and has a track record of successful project implementation. For this reason no co-financing is shown against this component in the project cost table below.

Component 3: Sustainable Forest Management—The Sustainable Forest Management component will augment the efforts of the FA and other institutions in pursuit of sustainable management of Papua New Guinea's forests. The component will support institutional reform and technical assistance to improve capacity within FA for forest management planning and implementation, as well as for monitoring of forest operations. Sanctions, incentives and assistance will be provided to promote sustained yield forest management and conservation practices at sites that currently are being commercially managed for timber production. The project will develop improved regulations, as well as monitoring and enforcement capability associated with the incorporation of enhanced conservation and environmental guidelines into new logging operations. In addition, efforts will be made to broaden the focus of forest management activities to include more diversity in management regimes and processing. Technical, legislative and policy support will be provided to foster community involvement in sustainable and environmentally sound forestry operations. Specific activities under this component will include:

- (i) Improved Forest Operations, Inspection and Monitoring— Improved performance by industrial-scale selective logging operations will be encouraged by implementing measures to ensure full compliance with the logging code of practice and forest legislation and regulations, and by promoting improved practices by the private sector and local clans. Existing large scale logging operations will be reviewed during the course of the project, for compliance with the Forestry Act and regulations, the logging code of practice, and other agreements made. This will include the introduction of incentives and sanctions as well as assistance in logging operations management training. An assessment will be made of the system of monitoring and enforcement of the codes and regulations related to logging, and efforts made to ensure such systems are made more effective and cost efficient. FA will be assisted in ensuring that management and tendering of new forestry projects fully complies with procedures and regulations established in the Forestry Act and all gazetted forestry and environmental legislation and regulations. The current system of forest royalties, charges and levies will continue to be reviewed and recommendations made on rationalizing these, as well as a mechanism for collecting and apportioning such revenues more equitably between landowners, NFS and the Ministry for Treasury.
- (ii) Forest Management Planning—GIS data exchange and availability for the purpose of assessing forest and land suitability for various forest management and conservation regimes (including conservation of biodiversity) will be improved. GIS capability will be upgraded in OEC, while FA's capacity to integrate such environment and conservation data into forest management will be enhanced. National forest management planning capacity at both the national and project site levels will be improved; while continuing research into improving forest management, cut control and silvicultural practices will be supported. These planning exercises will be linked to revision of the National Forest Plan and the National Forest Development Guidelines.
- (iii) **Post-Harvest Forest Management and Plantations**—Natural production forest management will be improved by expanding viable management prescriptions and post harvest activities that attempt to more adequately maintain the forest's production as well as ecological potential. Initially this sub-component will determine the viability of natural regeneration within PNG. Assuming a

reasonable degree of viability, the sub-component will then build on and scale up natural forest regeneration activities, supporting ongoing research, and determining the required pre- and post-harvesting prescriptions required to promote such regeneration. The aim is that, ultimately, responsibility for effective regeneration will be delegated to logging companies, with landowner participation, as appropriate. Feasibility work will be undertaken to determine conditions necessary to encourage plantation development, not as a substitute for long-term natural forest management, but as an option for already degraded forest lands and to help maintain or even increase forest production. Incentives required to attract investors will be identified

Component 4: Environmental Assessment and Monitoring. This component will provide technical assistance within the Office of Environment and Conservation to develop and implement rigorous assessment and monitoring methodologies and operational systems under the new environmental regulatory framework. Using the new Environment Act, legal, policy and administrative infrastructure will be institutionalized. A critical feature of the new legislation is the use of statutory Environment Policies, which are a legally binding instrument, like a regulation. Such Environmental Policies for any component of the environment (e.g. water, air, marine), any use of the environment (e.g. forestry) or any geographical sector (e.g. a particular catchment or region) provide, among other things, an independent, statutory constraint on the discretion of decision makers about the approval of new projects. Experienced environmental assessment and enforcement professionals will assist in the implementation of the environmental management system in the forestry sector, including undertaking proper assessment of proposed projects and setting permit conditions for new projects. All projects will be subject to monitoring and enforcement of their compliance with conditions. Where necessary, more appropriate environmental conditions for operation of existing projects (approved under existing legislation) will be introduced. Support will also be provided to develop and test a methodology by which communities can participate in environmental monitoring. Activities under this component will focus on 'on ground' activities, while recognizing that effective and sustainable change in environmental assessment and monitoring practice can only be achieved on the basis of adequate systems that facilitate these new approaches being institutionalized.

Environmental Assessment, Monitoring and Regulation —Technical assistance will promote (i) institutional capacity-building within OEC to: (a) ensure that an adequate legal and policy basis exists for consistent and rigorous environmental assessment, and the setting of comprehensive environmental permit conditions, (b) undertake outreach to inform the community and stakeholders of the environmental protection requirements in relation to forestry development projects, (c) deal with applications for new permits, and upgrade conditions of existing permits, (d) undertake appropriate field-based monitoring and enforcement of all projects, (e) provide the basis for assessment and issue of permits, and monitoring and enforcement in other environmentally impacting industries, and (f) develop a user pays fee system. Technical assistance and follow-up support will be provided to develop a comprehensive suite of supporting policies, regulations, guidelines and directives under the Environment Act to regulate the forest sector (including projects converting forest to agricultural use or plantation). Environmental assessment and regulation specialists will provide assistance in establishing and implementing the new system of assessment, permitting and monitoring and enforcement. Assistance will be provided in the preparation of training materials and development of a training capacity within OEC.

(ii) Environmental Monitoring by Local Communities—This activity will augment GoPNG activities by developing a basis on which community members living within conservation areas and sustainable forest concession projects can participate in environmental monitoring. The capacity of OEC to coordinate these activities and to liaise appropriately with stakeholders in the process will be developed. Specialist assistance will be provided to develop the methodology and materials to undertake pilot training of community monitors. The project will support the implementation and evaluation of pilot programs and the incorporation of lessons from evaluation into program design. Emphasis will be placed on forest management issues that are of concern to local communities and on providing training to trainers within government agencies and NGOs.

Component	Sector	Indicative Costs (US\$M)	% of Total	Bank financing (US\$M)	% Bank financing	GEF financing (US\$M)	% GEF financing
Landowner Forest	Institutional	10.63	27.2	6.12	36.3	1.91	11.2
Decision-Making	Development						
		14.99	38.4	0.00	0.0	14.99	88.2
Sustainable Forest Management	Forestry	8.71	22.3	7.26	43.1	0.00	0.0
Environmental Assessment and	Environmental	4.68	12.0	3.46	20.5	0.09	0.5
Monitoring	Institutions						
Global Components							
Conservation Trust Fund	Environmental	0.00	0.0	0.0	0.0	0.00	0.0
	Institutions						
Total Project Costs		39.01	100.0	16.84	100.0	16.99	100.0
Front-end fee		0.00	0.0	0.00	0.0	0.00	0.0
Total Financing Required		39.01	100.0	16.84	100.0	16.99	100.0

GEF Incremental Cost. Incremental costs for the proposed conservation activities are estimated at US\$17.00 million which would be divided into 2 CTF project phases: \$6.00 million, \$11.00 million. GEF support would be targeted to the following components:

- 1) The landowner decision making component will empower landowners to effectively and collectively consider multiple development options. GEF activities will strengthen the legal means for landowners to place lands under protected area status, provide legal assistance to landowners choosing the conservation and sustainable-use route and contribute landowner awareness and education inputs in support of the proposed new Conservation Trust Fund. Expenditures of US\$1.0 in each phase are needed to cover incremental costs associated with making conservation more accessible to PNG landowners.
- 2) As noted under the description of Component 2 above, it is expected that US\$15 million from the GEF for the CTF will be supplemented by co-financing to support a financing mechanism to respond to landowner initiated conservation and preservation proposals. The GEF funds will be made available in two tranches: US\$5 million will be available for disbursement to support the inception of the CTF, and some initial grants from it; and US\$10 million to finance the endowment fund which will support the CTF on a long term basis, from year 4 of the project onwards. This second tranche will be contingent upon successful inception and operation of the fund, and upon commitment of other donors to a capitalization stage.

2. Key policy and institutional reforms supported by the project:

The project will directly support major fiscal and other reforms which have been introduced into the forest sector in recent years, those introduced under reforms included those associated with the Governace Promotion Adjustment Loan, including:

- export tax, landowner royalty and project development levies, all designed to extract economic rent from utilization of the forest resource, and to distribute it effectively to landowners. These have been and continue to be developed, introduced into law, and implemented;
- development and maintenance of rigorous, transparent mechanisms for allocating timber licenses
 and permits to logging operators and conversion activities and the capacity of the forest agency to
 manage and enforce these. Such mechanisms have been major goals of recent legislative,
 institutional and management reforms in PNG. Additional reinforcements will be introduced in this
 project;
- · improved standards of management in forest operations under the PNG Logging Code of Practice, and improved capacity to monitor and enforce implementation of these standards;
- · more effective landowner involvement in selecting options for resource development, ensuring that landowners benefit from the use of their resources. GoPNG has been actively involved in this area, introducing fiscal measures, institutional decentralization and new local or land group level institutional arrangements. The project will support these activities;
- better implementation of international conventions relating to biodiversity conservation and environmental management conventions to which GoPNG is a signatory. Achieving conservation through the establishment of traditional, large protected area approaches has been historically difficult in PNG due to highly fragmented land ownership. The project will enhance the capacity of OEC to monitor and control the environmental outcomes of large-scale resource projects. It will also support clans/land groups who wish to pursue conservation-based activities in their local areas.

3. Benefits and target population:

The project will:

- (i) maximize both the level, and long-term sustainability, of revenues flowing to landholders and to GoPNG from forest management;
- (ii) protect local and national environmental values, including soil and water quality, land and forest

productivity;

- (iii) maintain development options from an intact and regenerating natural resource base; and
- (iv) provide global benefits from biodiversity protection and carbon sequestration, arising from increased options for conservation investments.

The project's primary target population is forest landowners representing approximately two-thirds of PNG's population. A portion of this group, whose forests have already been logged out in a way that makes forest recovery unlikely, will not be materially assisted by forest management aspects of the project.

4. Institutional and implementation arrangements:

Project Oversight

Government, at negotiations, would agree to create and staff a semi-autonomous Project Oversight Committee (POC) that would have responsibility for planning and directing project implementation and for achieving development objectives of the project. The Minister of Planning and Monitoring would appoint ten members to the POC comprised of representatives from major line ministries and from NGOs; LDOU and the CTF. The POC would meet, at minimum, quarterly. The POC will essentially be the same committee as the NFCAP Steering Committee and, as such, will also play a key role in coordinating forestry programs among donors and government. Establishment of the POC is a condition of effectiveness.

The Minister for Planning would, as a condition of negotiations, appoint a Project Manager (PM), familiar with the Forest Sector in PNG, as head of the PMU. The PMU, administratively, would be attached to the Department of Planning and would serve as Secretariat of the POC. The POC will initially be chaired by an officer of the Department of Prime Minister and NEC to facillitate inter-departmental coordination. The PM would be responsible for managing the day-to-day activities of the PMU and, with qualified staff, , would be authorized to: open and operate bank accounts; issue tender invitations; receive and evaluate tenders; award contracts, sign contracts, and make contract payments. The PM, and the PMU staff, would be responsible for project planning, monitoring and reporting; procurement; plus contracting technical assistance and training inputs based upon the needs and requirements of the project IAs. With exception of procurement using Shopping Procedures, the PMU would manage procurement on behalf of the IAs.

In addition to the PM, staffing of the PMU would consist of six to seven full-time technical and support staff, with additional part time staff as needed. The PM and other key staff, including an Accountant and a Procurement Specialist, would be employed as soon as possible using retroactive financing. A Component Manager (CM) would be appointed in each IA to prepare annual work plans and to maintain linkage with the PMU through joint working group meetings that would include other agencies involved. A first-year PMU and IA staffing pattern would be prepared by government and presented at negotiations for Bank approval. All GEF funded establishment activities for the Conservation Trust Fund, including technical assistance, would be managed by the PMU until such time as Endowment Funds have been made available.

Implementing Agencies

(i) Landowner Forest Decision Making—A small, consultancy-based Landowner Decision and Organization Unit (LDOU) will be established to manage implementation of this. It will have clear linkages to other relevant governmental bodies including the Department of Provincial and Local Level Government Affirs, the Department of Lands and Physical Planning, FA and OEC. In the early stages of the project it will be formally attached to a suitable government department, which

will facillitate ongoing landowner support beyond project closing.

- (ii) Conservation Trust Fund— The Conservation Trust Fund will be independent of government and, after an initial period of support and financial management, relatively independent of the project Management Unit for the FCP as well. The CTF Board of Directors will administer a management structure for the CTF Component. This Board, elected in 1999 by a procedure laid down in the articles defining the CTF, is the governing body of the Trustee Company. Links to Government, through the OEC Minister and Minister for Finance, will be established, likely by the presence of a representative from these departments on the interim board. The proposed financing mechanism will initially operate as a sinking fund and develop into an endowment-based fund.
- (iii) Sustainable Forest Management—Implementation of the forest management component of the project will be managed directly through the FA. Certain policy and legislative matters will be handled through the office of the Managing Director of the Authority, while responsibility for technical management will be through the General Manager, who controls operations. Formal links will be maintained with OEC regarding the environmental aspects of the component.
- (iv) Environmental Assessment and Monitoring—strengthening of environmental regulatory capacity will be managed within the OEC and be supported by enactment of new environmental protection legislation prepared with AusAID assistance.

Accounting, Reporting and Auditing

The project accounts and financial reporting will be prepared in accordance with standards acceptable to the Bank. The PMU would be responsible for keeping financial records and expenditures incurred for different components of the project, as well as preparing quarterly progress reports. Each implementing agency would be responsible for preparing monthly work progress reports.

Based on the Guide for Review and Design of Accounting and Reporting Systems issued by EAP Region, the control environment of implementing agencies has been assessed (see Annex 6) and an appropriate accounting and reporting system is being developed according to the requirements of OP/BP 10.02 and the Project Financial Management Manual. Initially, the traditional SOE disbursement procedures will be used. However, within a year from project effectiveness date, a determination will be made on adaptation of the PMR-based disbursement approach.

An Enhanced Supervision Approach, and a Clear Exit Strategy

The Quality Enhancement Review, carried out for this project in February, 2000, strongly recommended that, given the high risk environment in which this project is to be implemented, it requires:

"..intensive supervision, beyond that required for conventional investment operations, particularly during the first three years of the project implementation period."

The QER recommended that a specific annex be appended to the Project Appraisal Document, detailing specific milestones, priority areas for supervision, a supervision plan, and proposals for the use of trust funds and cooperative arrangements with other donors to implement enhanced supervision. It further recommended that some specific mention needs to be made of the resources that the project will provide to enhance environmental assessment and monitoring and evaluation in this area. It also proposed that the Bank needs to go beyond conventional Bank practice, by defining an exit strategy with trigger points and indicators specified for this project, in view of the high risks associated with its implementation.

Annex 17 to this document provides a supervision strategy, including an exit strategy based heavily around

outcomes of a mid term review (which is timed to occur immediately before the key large GEF disbursement for this project that would initiate the endowment phase of the Conservation Trust Fund is due). This supervision schedule will cost an estimated \$175,000. This is considerably more than typical Bank supervision budgets, on an annual basis, and this is a factor which should be borne in mind when considering this project.

D. Project Rationale

1. Project alternatives considered and reasons for rejection:

- (i) A project design focusing exclusively on institution building in the FA and OEC was considered for reasons of simplicity of institutional arrangements, but rejected because there is not yet sufficient momentum in the area of landholder initiative and involvement to rely on these traditional agencies to complete the process.
- (ii) A much broader project, encompassing natural resources management as a whole, was considered - with forestry as the lead-off component, to be followed by interventions in fisheries and marine areas, and then possibly mining. It is likely that investments in these areas will be considered by the Bank once enough is known about the priorities and issues for these sectors.
- (iii) The lack of an ongoing and reliable source of funding to support biodiversity conservation in PNG has been a major obstacle to achieving conservation objectives. One-off project funding was considered but would not meet the recurrent cost needs of engaging (and building capacity among) landowners to achieve long-term forest biodiversity conservation and ecologically sustainable forest management.

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).

Sector Issue	Project	(PSR) I	pervision Ratings I projects only)
Bank-financed		Implementation Progress (IP)	Development Objective (DO)
Forest Sector Adjustment	Economic Recovery Program Loan.	S	S
Forest Sector Adjustment	Governance Promotion (Effective mid 2000).	S	S
Other development agencies			
European Union	SGS Forestry Export Monitoring Project. (Completed end 1999). Sustainable Community Forestry Project (Second Phase implemented mid 2000).		
GTZ	Landowner Awareness Project (completed).		
UNDP/GEF	Integrated Conservation and Development Project (recently completed).		
UNDP	Capacity 21 Project.		
AusAID	Forestry HRD Project (Bridging financing to 2001, when new forestry project due to start).	7	
AusAID	DEC Institutional Strengthening Exercise (recently completed, with possible further assistance under new forestry project).		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

3. Lessons learned and reflected in the project design:

As discussed in Section A (Project Development Objectives) at more length, the essential lesson of experience with resource mobilization and landowner welfare in PNG has been that systems based on conventional centralized bureaucracies, negotiating agreements on resource use with large companies, has not in general served the interest of the owners of those resources - clan groups - well in PNG. To succeed in improving the delivery of services and the basic economic wellbeing of clans, systems of decision making and negotiation must be introduced which involve local communities early in the process, which give them the skills and knowledge they need to make the best decisions, and which build truly representative structures within landowner communities for participation in decisions and in the subsequent management of the resource.

Valuable lessons are available from the 1988-89 Barnett Inquiry into forestry, from Bank execution of forestry and biodiversity activities under trust funds (including NFCAP), from the experience with the

Economic Recovery Loan, from experiences under the UNDP-GEF ICAD project, from recent landowner decisions made in relation to the oil and gas industry, and from NGO-implemented conservation and sustainable use projects. These lessons, and the proposed measures to be taken under the projects to deal with them, can be summarized as follows:

- (i) Prior experience demonstrates that landowners have been excluded from full participation in the management decision-making process concerning natural resources they own and directly depend upon. The project will build landholders' capacity to make more informed decisions regarding resource use, support their ability to choose from multiple forest management options including conservation and sustainable-use of biodiversity, and to implement their choices.
- (ii) The informal nature of structures to represent landowner interests in project decision-making often disenfranchises the majority of community members. More transparent community representation mechanisms will be promoted through the use of ILGs.
- (iii) A strong preoccupation in the Ministry of Forestry with formal revenue collection and application of a complicated regulatory framework has diverted institutional attention from achieving sustainable forest management. The project will follow up specifically on measures aimed at sustainability in community-based as well as industrial forestry activities.
- (iv) There are many stakeholders and agendas in the PNG forests sector. Emphasis needs to be given to (a) consensus building, (b) to forest conservation as a component of sustainable forest management, and (c) to realistic alternative development options. This project's critical inputs capitalize upon customary land ownership, expansive intact forests and rising environmental awareness within PNG.
- (v) The GEF Evaluation of Experience with Conservation Trust Funds identifies certain key conditions associated with trust fund success, including internal and external factors that contribute to a fund's ability to become a viable institution and achieve its mission. PNG's CTF, at this early planning phase, meets a "critical mass" of these conditions, particularly the following:
 - The existence of a valuable, globally significant biodiversity resource whose conservation is politically, technically, economically, and socially feasible. The biodiversity conservation issue to be addressed requires a long-term commitment.
 - There is active government support for creating a mixed, public-private sector mechanism that will function beyond direct government control.
 - There is a critical mass of people from different sectors of society who can work together, irrespective of their diverse approaches to biodiversity conservation and sustainable development.
 - There is a basic fabric of legal and financial practices and supporting institutions (including banking, auditing and contracting) in which people have confidence.
 - · A legal framework exists for establishing a trust fund.
 - · A broad set of stakeholders have been, and remain, involved in the design process.
 - · "Mentors" support the Fund's establishment and operations -- in this case, a donor agency with program and supervision support (World Bank) and an international NGO partner (The Nature Conservancy).
 - Realistic prospects exist for attracting a level of capital adequate for the fund to support a significant program while keeping administrative costs to a reasonable

percentage. A number of bilateral donors have given positive initial responses concerning possible support for fund administration costs and/or contributions to either the sinking or endowment fund, provided positive indications of a successful inception and operation of the Fund are forthcoming.

An effective demand exists for the Fund's product.

The GEF STAP review (December 1997) concluded that the project is an "excellent proposal to conserve the globally and locally important biodiversity in Papua New Guinea," and is pragmatic regarding what can be accomplished. The report's suggestion for greater emphasis upon landowners, and the importance of their biological resources, has been addressed in this document, as well as comments regarding monitoring and evaluation. Community-based monitoring has been incorporated into the project. It has been suggested that the project open dialogue with mining and petroleum interests to assess their interest in participating in trust funds, conservation area establishment and land use planning. A representative of the mining industry is a member of the CTF Steering Committee.

4. Indications of borrower and recipient commitment and ownership:

Over recent years, the Bank has established a comprehensive dialogue with GoPNG, especially the FA. The Minister for Forests and the FA's General and Managing Directors support a forestry and conservation project of the nature described in this document. There is a widespread realization in government that improved forest management, conservation and environmental protection is important for sustainable development. This has been expressed in PNG's medium term development strategy document, and in requests for Bank assistance. An endorsement letter requesting GEF support has been received from the National GEF focal point.

5. Value added of Bank and Global support in this project:

The proposed project will be strengthened by the close relationship between the Bank's broad adjustment work and forest sector involvement in PNG. The Bank has developed strong, positive relationships with international and local NGOs and the donor community involved in natural resource management in PNG. The Bank has the necessary expertise and experience to help establish a financial instrument to support conservation activities, and to mobilize significant grant-based co-financing.

Participation of the GEF and other donors willing to finance development of landowner driven conservation and sustainable forest management alternatives will be crucial to this project's success. GEF support is critical to ensure that biodiversity conservation is integrated into forest sector policy and management. GEF support can also serve as a catalyst for identifying further donor support for a conservation funding mechanism, for ensuring full participation of landowner groups in decision making, and guaranteeing full access to information on alternative development options. GEF involvement makes possible conservation and sustainable forest management options that would not otherwise be available.

E. Summary Project Analysis (Detailed assessments are in the project file, see Annex 8)

1.	Economic (see A	nnex 4):
	Cost benefit	NPV=US\$ million; ERR = 25 % (see Annex 4)
\bigcirc	Cost effectiveness	
\bigcirc	Incremental Cost	
\bigcirc	Other (specify)	
Th	ne base case benef	it-cost and rate of return calculations, as shown in Annex 4, indicate that returns to
in	vestment in sustain	able forest management, including the cost of important related investments in

landowner participation in forest management, and an effective environmental assessment and monitoring system, are quite favorable: a benefit-cost ratio of 1.46 (at discount rate 12%), and an economic rate of return of 25% were calculated for the project.

GEF Incremental Cost comprises: Under the GEF Alternative, financial assistance would be provided to support landowner based alternatives to large-scale logging and establishment of conservation and sustainable-use activities in forest areas. This comprises two aspects: (i) the addition of \$1.91 million of GEF based funding into the landowner decision making component of the project, to allow landowners to establish conservation areas on their lands, and (b) financing the establishment of a Conservation Trust Fund. The required funding for the latter was calculated by estimating the proceeds generated from royalties on large scale logging operations and the level of landowner community demand for alternative livelihood and conservation options (see Annex 4). This would be achieved by establishing a long-term financing mechanism, which would be funded on a sinking fund basis during a demonstration phase (\$5.8 million) and, if successful, on an endowment basis thereafter. Ideally, this endowment fund should total \$30.0 million, of which \$10 million will come from the GEF, and the remaining \$20 million will need to be raised from other donors.

2. Financial (see Annex 4 and Annex 5):

NPV=US\$ million; FRR = % (see Annex 4)

Fiscal Impact:

3. Technical:

Selection and implementation of systems for monitoring and enforcement in forest operations (independent surveillance and monitoring, performance bonds, etc.) and the design of effective systems for landholder participation and involvement, will be the crucial technical elements in this project. In the case of the former, the project team is aware that there are technologies available for effective implementation of field based inspection of forest operations, based on periodic assessment of operational *outcomes*, rather than the more conventional official approach of supervising inputs into operations on a constant basis. The task of consultants and Forest Authority staff involved in this component will be to select the most workable and practical approaches to this, in the PNG field environment.

In the case of landowner participation in resource decision making and management, while there are elements of this which can be taken from other countries, the bulk of development of these systems will have to based on PNG's own experiences, given the uniqueness of the landowner clan based system in the country. There is expertise available in-country to deal with this aspect, and experiences from other sectors – notably the mining sector – will be a valuable tool in defining effective approaches. The project team commissioned consultancy reports from local experts in landowner issues, and these reports will form the basis of design of approaches to improving landowner decision making and representation in PNG.

4. Institutional:

As noted under Section D (Project Rationale) above, prior experience demonstrates that landowners have been excluded from full participation in the management decision-making process concerning natural resources they own and directly depend upon. The informal nature of structures to represent landowner interests in project decision-making often disenfranchises the majority of community members. A major focus of the project will be to develop models for landholder participation and concession level representative structures. An entirely new consultancy based structure for promoting landowner decision making and participation in resource use and conservation in their areas will be. Institutional analysis and history shows that it is likely to be better to build more transparent community representation mechanisms through the use of Integrated Landowner Groups, or other mechanisms with some record of success in PNG.

The Forest Authority has major human resource and other institutional limitations constraining its ability to carry out its fundamental task of sustainable forest management and planning. Moreover, a strong preoccupation in the Authority with large-scale logging, revenue collection and application of a complicated regulatory framework has diverted institutional attention from achieving sustainable forest management. The basic approach of the project, in this area, will be to focus the FA on the task of monitoring and enforcement in forest operations, but basing this upon a system of periodic outcome based assessment, to remove the very heavy institutional and technical burden which a complex, input assessment based regulatory system imposes.

In a similar vein, the Office of Environment and Conservation has limited human resource and technical capacity, especially in the area of environmental assessment of large scale natural resource projects. The institutional strategy of the project is to focus technical and institution building assistance on this aspect of OEC's work, and to form stronger linkages between OEC and the FA, especially for the task of initial evaluation of forest resource projects, when these are at the proposal stage.

Bank and international experience with endowment funds to promote biodiversity conservation show the importance of: (a) participatory design processes with landowners and other stakeholders, to ensure consensus on trust fund objectives and eligible activities; (b) an independent management structure for the CTF, with broad representation from civil society and government; (c) professional investment advisors to manage the capital endowment within an agreed investment strategy; (d) clear rules defining what activities are eligible for funding, who is eligible to apply, how funding requests will be evaluated/selected, and the funding cycle and funding ceilings; (e) a qualified, motivated technical team to administer daily operations; (f) a funding mobilization strategy to ensure sufficient capitalization to generate desired income flows; and (g) sound financial management and control procedures to ensure timely release and monitoring of funds. These lessons are being applied in the preparation of the proposed CTF and are reflected in the trust fund design.

4.1 Executing agencies:

National Forest Authority, Office of Conservation and Environment, Conservation Trust Fund

4.2 Project management:

Government, at negotiations, would agree to create and staff a semi-autonomous Project Oversight

Committee (POC) that would have responsibility for planning and directing project implementation and for achieving development objectives of the project. The Minister of Planning would appoint ten members to the POC comprised of representatives from major line ministries and from NGOs; LDOU and the CTF. The POC would meet, at minimum, quarterly. The POC will essentially be the same committee as the NFCAP Steering Committee and, as such, will also play a key role in coordinating forestry programs among donors and government.

4.3 Procurement issues:

Conservation Trust Fund procurement initially to be managed by Project Management Unit.

4.4 Financial management issues:

Conservation Trust Fund financial management to be undertaken by Project Management Unit.

- **5. Environmental:** Environmental Category: B (Partial Assessment)
- 5.1 Summarize the steps undertaken for environmental assessment and EMP preparation (including consultation and disclosure) and the significant issues and their treatment emerging from this analysis.

An environmental review was conducted and forwarded by the government after appraisal. Prior to appraisal, the review was distributed to the PNG FA and OEC as well as to a number of other stakeholders and was based on a review of relevant project documents, field trips and meetings with the implementing organizations. On some half a dozen occasions, draft project documentation has been widely distributed and comments received, leading to substantial and adaptive development of the project. The review describes: (1) the current environmental issues confronting the management and further developments of the forest sector in PNG; (2) the implications of the current situation on the long term condition of forest ecosystem and ecological functions; (3) the ways in which the project interventions are expected to improve the current environmental situation; (4) the risks associated with proposed interventions and describes the conditions under which such interventions may have unanticipated or unexpected negative outcomes; and (5) the measures that will be taken to ensure that mitigation measures and environmental safeguards are properly addressed and incorporated into the project.

Annex 13, the Summary of the Environmental Review provides a detailed description of project activities, the associated field activities, potential environmental impacts, mitigation measures proposed and key assumptions which apply to each project component.

Although the review indicated that there are no major negative impacts arising from project actions, and that the project is in compliance with World Bank Operational Policies and Directives for forestry activities and environment assessment (OD/OP 4.01; 4.36 and 4.04); environmental risks could arise from the possibility that:

- the Bank's involvement in the sector is <u>perceived</u> by stakeholders as further entrenching the status quo;
- the project fails to meet its objectives and a significant opportunity to promote sustainable development of the sector is lost;
- technical management options supported under the project do not meet their stated goals;
- the project furthers the goals and aspirations of a single constituency (i.e., the timber industry) over the legitimate interests of other groups.

The project is designed to address these risks and; if successful, will move the forest administration a long way toward four important goals. First, it will establish a more transparent decision making process and thus lead to increased and more appropriate forest sector governance. Second, it will help to ensure adherence to principles of environmental planning. Third, it will improve opportunities for public imput

into the decision process. Fourth, it will strengthen the conservation capacity within PNG.

5.2 What are the main features of the EMP and are they adequate?

Components 1 and 4 (Landowner Forest Decision Meeting and Environmental Assessment and Monitoring) constitute the environment management plan as an integrated part of project design, while the Conservation Trust Fund and the Sustainable Forest Management component resources to undertake specific mitigation and environmental measures.

The key features of the EMP therefore are: (i) implementation of independent inspection and review activities; (ii) monitoring and assessment of key environmental indicators; (iii) public participation and input into decision making and in all elements of the project and therefore the EMP; (iv) implementation of sustainable forest management inclusive of biodiversity conservation in a culturally appropriate context; and,(v) adaptive management of the project in the light of monitoring and public consultation.

5.3 For Category A and B projects, timeline and status of EA: Date of receipt of final draft:

EA was undertaken June - August 1998. First drafts from government received March 1999. It is now complete.

5.4 How have stakeholders been consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed environment management plan? Describe mechanisms of consultation that were used and which groups were consulted?

Environmental NGOs, church groups, other civil society groupings were consulted frequently during the preparation of the project and were given the EA findings for comment. Also, high levels of participation from all stakeholders in the social assessment for this project, included major consultation on forest environment issues.

Annex 18 provides a detailed summary of public participation in the preparation of the project. It includes a description of various formal and informal meetings, disclosure of project documents and participation in project design within and outside PNG. The process of consultation has been maintained throughout all stages of project development and will be a key feature of implementation

5.5 What mechanisms have been established to monitor and evaluate the impact of the project on the environment? Do the indicators reflect the objectives and results of the EMP?

The key performance indicators as outlined in Annex 1 include environmental monitoring criteria, especially in the case of Component 4 (Environmental Assessment and Monitoring) and have been extensively reviewed to ensure they adequately monitor and evaluate the impact of the project. As such, they directly reflect the objectives and results of the EMP.

6. Social:

6.1 Summarize key social issues relevant to the project objectives, and specify the project's social development outcomes.

High levels of participation from diverse stakeholders, including government, civil society, the private sector and particularly landowners, are central to the outcome of the project. For this reason, a strong participatory and consultative approach has been applied in project preparation. This strategy will remain during project implementation (see Annex 11, Social Analysis of Rural Development Issues; and Annex 18). The project will learn and build upon the lessons of previous GEF activities in PNG; including the Lak and Bismarck-Ramu ICAD sites. The Bank has recently concluded a field audit of Landowner

Benefits (analyzing the extent to which timber companies meet their commitments to landowners). This study is an important component of assessing the social issues upon which this project depends. Key social issues relevant to the project include (i) governance; (ii) decentralization and service delivery; (iii) social and cultural fragmentation; and (iv) gender issues. The project using a participatory framework for implementation will have significant social development actions including increasing the stock of social capital at the local level and improving the links between local and formal governmental institutions.

6.2 Participatory Approach: How are key stakeholders participating in the project?

The Forestry and Conservation Project by its nature will be heavily reliant upon participation by landowners, civil society groups (especially the various church groups, which are highly involved and influential in PNG) and NGOs, and progressive elements in the forest industry sector. It is expected that the project will set in train a long term set of changes in the means by which stakeholder groups become involved in the use and management of forests: in one component – the Conservation Trust Fund – longevity is actually mandated in the design of the financing arrangements, which will guarantee that this non-government facility will be capable of supporting landowner activities within its terms of reference into perpetuity.

For these reasons, the preparation phase of the project has relied heavily on participation by stakeholders – especially those in the civil society grouping – in the formulation of basic objectives and design of the project. The implementation phase of the project has very specific measures incorporated (especially within the Landowner Decision Making component) to bring broad groups of stakeholders into the implementation management and planning process: for example, a number of regional workshops, leading to a national level conference on landowner representation and decision-making issues is programmed into the implementation schedule for the project.

6.3 How does the project involve consultations or collaboration with NGOs or other civil society organizations?

The participatory framework to be used during project implementation includes:

- social mapping and baseline data activities
- option information and awareness building
- multi-level awareness building
- integration of development strategies and local government planning
- local and national agency institution capacity building
- local project preparation and implementation particularly with
- selective social assessment where sub-project are to be implemented

6.4 What institutional arrangements have been provided to ensure the project achieves its social development outcomes?

At the national level, the project Oversight Committee will have NGO representation on it. As a result of previous and current requirements of the Bank implemented structural adjustment operations in PNG, the PNG Forestry Board includes an NGO representative, the regulations require the Board to disclose all non-commercial in confidence deliberations relating to the allocation of forest resources, which enables civil society groupings to have timely access to this material. In addition, the Forestry Board includes a representative from the broader PNG private sector from the Chamber of Commerce: the intention being to expose a wider grouping of the private sector to forest sector issues, and to draw more interest from responsible members of that community in sustainable forest investment.

Within the project, there will be support for participation of landowners and civil society groupings

representing their interests in all components of the project:

- extension, workshops and consultations will be supported on the central issue of landowner organization and representation in the resource use decision making area, within the Landowner Forest Decision-Making component – in fact, these are a central element of the strategy of implementation of that component;
- the Conservation Trust Fund component, as will be evident from the above and more detailed description of it elsewhere in the document, is entirely based in civil society management, and has major provisions for constant consultation and interaction with landowners and others in all aspects of its activities;
- landowners and their representatives will participate increasingly in the management and monitoring of
 ongoing and new forest operations in PNG, both through specific measures designed to include them in
 these processes introduced in the Sustainable Forest Management component, and also as measures
 improving their capacity to negotiate with industry and government agencies through the Landowner
 Forest Decision-Making component come into effect.
- specific support is provided for engagement of landowners in environmental monitoring, under the Environmental Assessment and Monitoring component

6.5 How will the project monitor performance in terms of social development outcomes?

There are a number of specific participation outcomes included for evaluation as key performance indicators in this project including:

(i) delivery of training on the development Option Study methodology to landowner representatives; (ii) preparation and

submission of legislation to simplify and strengthen the process of incorporation of landowner representative

groups; (iii) achievement of effectively representative landowner organization in 20% of major forest resource project

areas by mid term review, and 0% by project close; (iv) a range of specific targets relating to implementation of CTF

financed landowner projects by mid term and project close; (v) increased involvement of landowners in the Forest

Management Agreement negotiation process; and (vi) achievement of at least 20 pilot community managed environmental assessment programs.

7. Safeguard Policies:

7.1 Do any of the following safeguard policies apply to the project?

Policy	Applicability
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	● Yes ○ No
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	● Yes ○ No
Forestry (OP 4.36, GP 4.36)	● Yes ○ No
Pest Management (OP 4.09)	○ Yes ● No
Cultural Property (OPN 11.03)	○ Yes ● No
Indigenous Peoples (OD 4.20)	○ Yes ● No
Involuntary Resettlement (OD 4.30)	○ Yes ● No
Safety of Dams (OP 4.37, BP 4.37)	○ Yes ● No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	○ Yes ● No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)*	○ Yes ● No

7.2 Describe provisions made by the project to ensure compliance with applicable safeguard policies.

Three safeguard policies are triggered and compliance will be achieved by (i) successful implementation of the environment assessment and monitoring component; (ii) a high level of project supervision; (iii) development of independent and community level monitoring of project activities in connection with improved standards of forest and conservation management (iv) significant institutional capacity building in government (PNG FA, OEC and Landowner Forest Decision-Making Unit) and in local communities. (v) regular assessment of project performance (refer Supervision Plan) against measurable agreed project indicators.

F. Sustainability and Risks

1. Sustainability:

The project's sustainability is vitally dependent on five elements. First, it will depend heavily on GoPNG's continued commitment to maintain the conditionality and the forest and land management standards that will be established under the project, as well as the progress in forest sector reform achieved over the last decade. Second, the project depends upon the development of effective mechanisms for landholder participation and monitoring in conservation and forest management. Third, the CTF will need to be capitalized at a level sufficient to generate annual resources needed to meet demand, an estimated need of US\$1.5-20 million annually for alternative development options in the long term. Fourth, conservation mechanisms must be accessible, attractive and able to respond quickly to opportunities and requests for local conservation initiatives. Last, the broader context and longer term goals for forestry outlined in item 5 under B. Strategic Context above need to be borne in mind and there is likely to be a need for continuing support for developments related to the achievement of these goals beyond the project life, and the Bank is committed to such support.

The ultimate success of the project will depend upon the extent to which it builds well-being and quality of life for landowners, in the long term. The activities of the Conservation Trust Fund will emphasize sustainable income-generating alternatives to exploitative and unsustainable resource use. The basic objective of improving landowner participation in resource decision-making is to ensure that marginalized and poorer individuals gain access to the process, and thereby improve their own economic situations: this important poverty alleviation focus is key to sustainability of the programs initiated under the project.

2. Critical Risks (reflecting the failure of critical assumptions found in the fourth column of Annex 1):

Risk	Risk Rating	Risk Mitigation Measure
From Outputs to Objective		
Forest management and environmental	M	Reliance on initial inputs from contract sources
assessment processes ineffective, due to		and strong project management. Project
institutional limitations in major		strengthening of agencies concerned.
departments of Government.		
Delays in establishing landholder participation mechanisms and obtaining cooperation and understanding for development options.	S	Strong and early involvement of NGOs and community groups, plus early education programs aimed at potential candidate communities.
Industry non-compliance with conditionality/regulatory framework.	Н	Support and, if necessary, stand-by financing for GoPNG. Conditionalies linked to this

Insufficient incentive/interest by landholders in conservation investment.	N	project and SAP. Comprehensive assessment of interests/requirements during design
From Components to Outputs		
Inappropriate changes to sector policy.	M	Strong linkage to adjustment program and donor program, and responsive to local concerns and knowledge.
Incentive for existing landowner company representatives to undermine new participatory arrangements.	Н	Conditionality for GoPNG to establish new regulations and support implementation early must be strong; strong educational component emphasizing benefits of sustainable forest management.
CTF financing mechanism not adequately supported.	M	Donor and industry commitment ascertained prior to inception.
Adequate and timing provision of counterpart funds.	M	Major responsibility of Project Management Unit to monitor and rectify.
Overall Risk Rating	S	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N(Negligible or Low Risk)

3. Possible Controversial Aspects:

- (a) This project could encounter difficulties, even defiance from PNG's private logging sector. Every effort has been, and will continue to be made, to involve the sector positively in the reforms proposed. However, there is a risk that some elements of the present industry will see their interests as being threatened, both by the investments in landholder awareness and decision-making, and by the upgrading of the Forest Authority's capability to monitor forest operations. The Bank and other donors will need to stay in close touch with industry representatives, and in particular will need to participate fully in consultations on the future for the sector as well as be prepared to support GoPNG in its forestry sector reform efforts.
- (b) Support from the Bank for strengthening incorporated land groups must be implemented with care, through capable NGO and community groups. Misconceptions that the project is acting as a proxy for government registration of clan land would be extremely counterproductive in the PNG situation, considering the strong customary attachments to land. In actuality, this project thoroughly embraces the customary land tenure system, and utilizes its strengths in pursuit of locally appropriate conservation models.
- (c) Reform in the sector has also been facilitated by conditionalities in the GPAL which has supported the government's recent decisions regarding the sector including a moratorium on granting new FMA's, timber authorities and geographical extensions, until the processing of these applications has been reviewed. Even though the FCP includes a review of all ongoing operations the moratorium supported by the Bank only refers to those in process. It is not possible given the GPAL time frame and the probable commercial implications for all operations to be suspended until a review is completed. This view is not shared by some within the NGO community and is subject to an ongoing dialogue.

G. Main Conditions

1. Effectiveness Condition

- (i) Government to confirm the establishment of a FCP "Supply and Tenders Board", with an award level of US\$500,000 equivalent;
- (ii) Government will establish an "Executing Agency Trust Account" with an initial deposit of US\$ 250,000 equivalent to be used as a replenishable account from which project expenses will be paid;
- (iii) Government to establish a POC.
- (iv) Two GEF Grant Agreements have been signed by GOPNG and CTF, respectively.
- (v) That a Procurement Specialist has been retained by the PMU.
- (vi) Government to adopt a timetable satisfactory to the Bank to implement the recommendations of the review of pending timber harvesting permit applications.
- (vii) Government to employ consultants to undertake the review of all ongoing logging operations.

2. Other [classify according to covenant types used in the Legal Agreements.]

Dated Covenants:

- (i) By June 2002 have fully operational, to Bank standards, the project financial management and control system, within the Project Management Unit. Establish instruments to acknowledge and legitimatize local land use decisions.
- (ii) By August 2002 the Landowner Decision and Organization Unit fully operational and the Development Options Studies Strategy adopted.
- (iii) By June 30, 2002 issue then enforce regulations requiring logging companies with new timber licenses or permits to post performance bonds (not less than 40% of esimated average annual operating costs at minimum cut production levels) or such other amounts as the borrower and the Bank shall otherwise agree. These bonds will be drawn down by Government on evidence of non-compliance by the logging company with the Logging Code of Practice.
- (iv) By June 30, 2003 a bill enabling forest landowner groups to organize as legal entities and designate their forests of conservation areas, will be submitted to Parliament. When enacted required regulations for implementation will be issued.
- (v) Operating through the PNG Forest Authority, and utilizing consultant services hired by the PNG FA under terms of reference and conditions satisfactory to the Bank, the Government will review at least 15 logging operations in the field for compliance with the Forestry Act and regulations, by June 30, 2003, and will have reviewed all operations current in PNG as of the date of signing the Loan Agreement by project close.

General Covenants:

- (i) Maintain at the 2000 (real) level the Forest Authority's operational budget. For this purpose in November of each year, commencing on November 2001, the Borrower shall, through the Forest Authority, furnish to Bank, for its review and comments, the proposed budgetary allocations for the forthcoming Fiscal Year. (Refer Project Development Objective, main text);
- (ii) Government's Forestry Act should not be amended if the amendment affects achievements of project objectives;
- (iii) Maintain the funding and independence of the Forestry Board;
- (iv) Maintain the log exporting inspection operation for the duration of the project;
- (v) Maintain the effectiveness of the project financial management and control system, including all

necessary updating and staff training;

James J. Douglas

Team Leader

- (vi) The Government undertakes not to remove the moratorium on approval of applications for logging permits until it has implemented recommendations made by the team reviewing pending timber harvesting permit applications.
- (vii) Review all logging permit applications submitted to determine compliance of application process with the Forestry Act, by means satisfactory to the Bank.

H.	Readiness for Implementation
	1. a) The engineering design documents for the first year's activities are complete and ready

Mark D. Wilson

Sector Director

 1. a) The engineering design documents for the first year's activities are complete and ready for the start of project implementation. 1. b) Not applicable. 	
 2. The procurement documents for the first year's activities are complete and ready for the start of project implementation. 	
☑ 3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.	
4. The following items are lacking and are discussed under loan conditions (Section G):	
I. Compliance with Bank Policies	
 I. Compliance with Bank Policies 	

Klaus Rohland

Country Manager/Director

Annex 1: Project Design Summary PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Sector-related CAS Goal:	Sector Indicators:	Sector/ country reports:	(from Goal to Bank Mission)
Satisfactory regulatory environment and adequate monitoring to ensure sustainable management and conservation of forest resources vital to PNG's economic growth.	- Improvement in quality and sustainability of forest operations.	 At least 30% of all operating concessions in compliance with logging code of practice by the project Mid-term Review (MTR); 80% of forest operations compliance by project completion. 	Existence of strong political will and commitment to ensure compliance with sustainable forest management and conservation regulations as well as equitable landowner participation in forest resource benefits.
	- Conservation sites identified	_	
Environmental protection	and protected. - Landowner involvement in	 All major conservation sites excluded from forestry project development areas by project close. Approved mechanisms 	Willingness of landowners to
and conservation of important forest ecosystems.	planning and monitoring of forest operations	negotiations within 2 years of effectiveness Legislation amendments tabled to ensure legal basis for land group managed forests and conservation areas within 2 years of effectiveness.	participate in forest resource development and management operations and monitoring.
3. Improved benefits for			
landowners from the use of			
natural resources.			
GEF Operational Program: In-site conservation and sustainable use of forest biodiversity with the active involvement of local communities as managers and beneficiaries of better forest management.	- Increases in landowner based conservation activities in forest areas.	- grant based landowner project financing mechanism disbursing against effective projects at 50% of final endowment target yield level by end of fourth year; - grant funds disbursing at 100% of endowment yield level by close.	Conservation Trust Fund will be able to identify sufficient viable landowner conservation projects.

	Key Performance		
Hierarchy of Objectives	Indicators	Monitoring & Evaluation	Critical Assumptions
Project Development	Outcome / Impact	Project reports:	(from Objective to Goal)
Objective: 1. Capacity of government, local communities and other stakeholders strengthened to sustainably manage and conserve PNG's forest resources; 2. Sustainability of income opportunities and quality of life of local populations living under customary title in forest areas improved.	Indicators: - Improved forest management planning and monitoring and enforcement of codes of practice in position with enhanced local community involvement. - Strengthened legal and institutional capacity to enforce effective environmental assessment of forestry operations Strengthened capacity to integrate environmental conservation planning in forest management planning.	- completion of revision of forest data systems, management prescriptions, regeneration guidelines, monitoring system and effective sanctions by project close; - 30% of major commercial operations under new inspection and enforcement standards by MTR; - 80% of major commercial operations under new standards by project completion Environmental Assessment (EA) permits management system in place and regulations approved within 2 years of effectiveness 30% of proposed operations assessed by MTR; - all proposed operations assessed by project completion legal and regulatory measures related to development options study process in place by MTR; - landowner representative institutions designed, with establishment initiated and implementation training ongoing, by MTR; - landowner institutional arrangements functioning in 3 major watersheds, by project close.	Government agencies, NGOs and community groups and
Global Objective:			

	Key Performance		
Hierarchy of Objectives	Indicators	Monitoring & Evaluation	Critical Assumptions
Output from each	Output Indicators:	Project reports:	(from Outputs to Objective)
Component: Landowner Forest			
Decision-Making Component			
Development options procedures enabling landowners to make informed decisions about use of their resources improved.	- Development and implementation of DOS strategy and education plan for landowners; - Approval of necessary enabling regulations, and presentation of any necessary legislation to Parliament;	- LDOU established within 1 year of effectiveness; - Implementation of education on DOS for landowners 2 years after effectiveness; - Approval of updated Land Groups Incorporation legislation by MTR;	Landowners willing to participate actively in formation of improved representative organization.
Representative landowner organizations and networks established and strengthened.	- Technology and knowledge transfer on best practices for landowner organizations completed; - Representative organizations and networks among landowner functioning;	 Workshop on best practices for landowner organisations by 2 years after effectiveness; Representative landowner organisations in 20% of major forest resource project areas by MTR; Representative landowner organisations in 80% of major forest resource project areas by close. 	- Increased information and community TA will actually lead to more beneficial forest use decisions.
Establishment of landowner managed conservation areas.	- Legislation and regulations amended or developed to facilitate recognition of status of landowner managed conservation areas;	- Legal basis for landowner-managed CMAs 1 year after effectiveness	
	- Landowner managed conservation projects established	CMA projects operating in 1 major watershed area by MTR; CMA projects operating in 3 major watersheds by project close	
CTF financed projects implemented.	 Develop project appraisal and monitoring capacity within CTF Landowner applications appraised; projects financed and implemented. 		Landowners willing to participate in formation and implementation of viable conservation based investment projects.
Conservation Trust Fund Component			
Establishment of a grant-based trust fund to	- Board of Trustees appointed, legal instruments approved and administrative office established;	- Board appointed and functioning by project	Willingness and capacity of donors to provide funds to

provide long-term, reliable and independent financing for landowner-based forest conservation development.	- Financial base for Conservation Trust Fund developed	effectiveness; - Trust constitution and corporate entity approved within first year of effectiveness; - One year from effectiveness, fund raising capacity of CTF in place. - System and controls for investment of endowment funds in place by MTR; - Minimum US \$5m in grants for CTF available or written commitment from other donors by MTR All audits of CTF operations clear and acceptable by MTR GEF sourced endowment funds matching other grants in place by MTR;	create a viable endowment
2. CTF financed projects implemented.	 Develop project appraisal and monitoring capacity within CTF Landowner applications appraised; projects financed and implemented. 	 appraisal criteria in place 1 year after effectiveness; operational manual completed, operational procedures approved within first year of project; Trust technical staffing appointed within 1 year after effectiveness; agreements completed and GEF sinking fund grant in place by effectiveness; 20 demonstration projects under implementation by MTR; 50 small grants and 8 larger grants, utilizing total estimated yield from endowment funds 	Landowners willing to participate in formation and implementation of viable conservation based investment projects.
Sustainable Forest Management Component 1. Implementation of improved systems of monitoring and enforcement in large scale forest operations.	 Reviews of FMAs, forest permits and logging operations for compliance with regulations and codes of practice; Introduction of inspection and monitoring procedures; Review and restructure system for forest charges, incentive arrangements and code of practice, via a multistakeholder consultative process. 	invested, by project close. - reviews of 15 sampled operations completed by MTR; - review of all logging operations completed by project close. - revenue system approved 1 year after effectiveness; - codes of practice completed and approved by MTR.	Forest industry can be induced to cooperate in complying with regulations related to logging codes and monitoring.
Forest management and planning capacity improved	- Enhanced capability to integrate conservation planning	- adequate integrated conservation-related Global	Establishment of working protocols between DEC and FA

and more equitable participation of relevant landowners in the forest management and conservation process.

- with forest planning using imagery based forest data systems;
- Revision and application of more sustainable annual allowable cuts and silvicultural prescriptions;
- Redesign Forest Management Agreement to incorporate more responsibility for forest management and silvicultural prescriptions as well as monitoring, plus new landowner decision making arrangements.
- 3. Regeneration of logged over forest areas improved.
- 4. Industrial plantation development feasibility pursued.

Environmental Assessment and Monitoring Component

1. Capacity and regulatory base of Office of Environment and Conservation to apply environmental impact assessments to forest operations improved

- Develop and implement improved silvicultural/logging management guidelines for regeneration following logging.
- Develop strategy and regulations to shift onus for forest regeneration to logging companies in collaboration with landowners.
- Implementation of natural regeneration pilots in different forest types under agreement with logging companies and landowners.
- Plantation development strategy, together with necessary policy and legislative incentive amendments prepared.
- Plantation feasibility examined and investment sought.
- Completed legislative and regulatory reform requiring EA application to forest operations and proposals;
- Establishment of new permits administration and payment system and awareness training undertaken on environmental regulatory methods to facilitate completion of EAs for forest projects.

Information System(GIS) operational capability in Office of Environment and Conservation (OEC) and FA 2 years after effectiveness; - new Annual Allowable Cut (AAC) estimates and silvicultural prescriptions introduced into all new operations 2 years after effectiveness; into all operations by project close; - new FMA system approved by Forestry Board 2 years after effectiveness;

- new FMA system applied to all proposals for approval 3 years after effectiveness.
- regeneration guidelines and regulations approved 2 years after effectiveness;
- introduced to all forest operations by project close.
- Incentives/sanctions for logging companies to undertake regeneration in place by MTR.
- At least four working regeneration pilots by end of fifth year of project.
- Plantation strategy study and initial site identification completed 2 years after effectiveness;
- Feasibility study and prospectus for investment completed by MTR.
- new Environment Act tabled in Parliament and regulations drafted 1 year after effectiveness:
- criteria and approach for existing forestry projects permit system finalised within 2 years of project effectiveness;
- implementation of new fee collection system and accounting within 2 years of project effectiveness;
- 30% of all forest operations (existing and proposed) subjected to EA by MTR
- all forest operations subjected to EA by project

on the integration of environmental considerations into forestry planning at the onset of concession management planning.

Cooperation and understanding of landowners in participating in FMA approval process.

That natural regeneration is a silviculturally viable and cost effective option for sustainable management.

Logging companies to cooperate in forest regeneration activities on a large-scale basis.

Land and tree tenure arrangements satisfactory for necessary medium to long-term investments in plantations can be established.

Formal protocols between DEC and FA needed to facilitate the undertaking of E As of forestry operations.

2. Capability of landowner	
communities to augment	
government activities in the	е
monitoring of environment	al
outcomes related to forestry	7
activities improved.	

- Preparation of training materials and training of key local individuals in environmental assessment;
- Implementation and evaluation of pilot community environmental assessment programs.

completion.

- Environmental assessment training modules ready 1 year after effectiveness;
- 100 community assessors trained by MTR;
- 20 pilot assessment programs under implementation by project close.

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Project Components / Sub-components:	Inputs: (budget for each component)	Project reports:	(from Components to Outputs)

Annex 2: Detailed Project Description PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

By Component:

Project Component 1 - US\$10.63 million Landowner Forest Decision-Making

Objective and Scope. This component will develop more effective institutional arrangements to assist landowners to learn more about the range of forest development alternatives, facilitate decisions regarding which option to pursue, and assist them to access technical and financial resources to pursue their choice. This will include accessible conservation and sustainable-use opportunities.

A Landowner Decision and Organisation Unit (LDOU) will oversee the organizational, technical and training requirements of the component. It will operate as a relatively autonomous unit with linkages to agencies that already have responsibilities for planning community development, especially local governments. It will be linked with a coordinating government agency, but a more permanent 'home' for elements of the unit that will remain after project closure will be determined during the project.

Sub-component 1-1: Development Options Study. Cost US \$4.17 million. This sub-component will provide the institutional and resource base for initiating a Development Options Study (DOS) process, which will:

- enable communities to consider alternative options for future resource use and development using a participatory planning process;
- assist communities to engage in more detailed planning for their chosen options, build linkages between the community and relevant development partners, pursue legal recognition for these decisions, and develop joint management arrangements.

Activities to be carried out under this sub-component will include:

- production of a strategy paper outlining the DOS approach, for NEC endorsement;
- production of environmental assessments (in cooperation with the OEC), community planning maps, and plans, for landowner resource use decision-making and subsequent management;
- development of mechanisms for negotiation of management agreements and localized project control, and testing of these in demonstration activities;
- · establishment of a landowner information and expertise network;
- development of educational materials on forest management and conservation, for use in landowner extension activities;
- · documenting the methodologies and lessons learnt to provide a model for transfer of workable development option approaches throughout PNG and Melanesia.

Sub-component 1-2: Strengthening of Landowner Representative Mechanisms - Cost US \$1.10 million. Through activities managed by the LDOU, the project will develop a sound policy and legislative basis (including any necessary updating of the Land groups Incorporation Act) to enable landowners to establish representative organizations which increase their participation in development activities. Consideration will be given to recent similar work undertaken for the Oil and Gas Industry. One existing possibility for landowner organization is the Incorporated Land Group (ILG), which can provide landowners with legal recognition and organizational structures to increase their decision-making power on resource management and land use. However, different variations on this approach may need

to be developed to varying social and economic circumstances among landowners in the country.

To this end the project, through this sub-component, will:

- sponsor a land groups workshop to review best practice and past experience and make recommendations for changes to legislation and institutional support for landowner groups;
- review the Land Groups Incorporation Act and, if necessary, facilitate multi-agency proposals for amendment, which then will be submitted to NEC and Parliament;
- strengthen ILG regulation by developing streamlined procedures within the Lands Department ILG Registry consistent with legislative changes, and prepare manuals explaining the procedures;
- develop local official and NGO skills and capacity to initiate ILGs and maintain them on a long-term basis, as well as to continue training and capacity building beyond the project life;
- assist establishment of ILGs or similar structures in selected areas as part of the process of assisting landowners to pursue options for conservation and sustainable development.

Sub-component 1-3: Land-Group Based Conservation and Resource Management Areas - Cost US \$1.61 million.

Some landowners will want to consider conservation area establishment, or some mixture of conservation and resource development. This sub-component will assist them with the designation of Wildlife Management Areas (WMA), and the creation of Conservation Areas, both under existing legislation.

The LDOU and OEC will cooperate to amend Government conservation area policy to create a protected area type (tentatively titled Conservation Management Areas, CMA) that will allow a conservation area to be established in coexistence with small scale and sustainable resource use activities. Assistance will be provided under the project for landowner groups to develop the necessary plans, as well as to establish management and enforcement mechanisms needed to establish and maintain CMAs.

Activities to be supported under this sub-component will integrate with those supported under 1-1 and 1-2 above whenever conservation is coupled to sustainable forest use:

- policy and legislative development to ensure a legal basis for establishment of land group managed conservation areas;
- increasing OEC's capacity to promote legal establishment and registration of WMAs, and CMAs;
- assisting land groups to establish CMAs in appropriate areas, and to prepare applications for financing.

Project Component 2 - US\$15.00 million

Conservation Trust Fund.

Objective and scope. This component will establish an ongoing, reliable and independent source of in-country funding for biodiversity conservation and sustainable development, based on landowner participation. The CTF will support the framework developed under the landowner component, providing funds for selected landowners that show commitment to conservation-orientated resource use options. It will be a non-governmental entity, governed by a multi-stakeholder Management Board. Funding will be focused at landowner and Incorporated Land

Group (ILG) levels, using NGOs as well as government agencies as service providers, and will be focused on conservation of biodiversity.

OEC is the lead governmental agency on all conservation-related matters, including setting conservation priorities, formulating policies and implementing programs. Thus, a strong cooperative relationship will be developed between the OEC and the CTF (see Annex 12).

The component will be implemented in three phases. In the first half of 2000, an Establishment Activities phase was initiated drawing upon pre-project funding mainly to provide the services of a Senior Trust Fund Advisor and other short term technical assistance. Once established, a three-year Commencement phase will be initiated, drawing upon a sinking fund. This will be followed by an CTF Endowment phase, after which the Fund is expected to operate in perpetuity supported by the yield from the endowment. The Fund will support protection of biodiversity conservation areas, awareness building and technical assistance for landowners, and selected conservation initiatives on a broader basis than forestry where possible and appropriate.

By Board date, substantial preparation of this component will have been completed, including:

- formal incorporation and registration of the Trust, to GEF requirements, as a legal entity in PNG;
- establishment of an interim management board for the CTF;
- completion of an operations manual, and an information note to go to NEC for endorsement of the CTF concept;
- establishment of accounting and asset management systems, and monitoring and evaluation procedures as generally described in the CTF Operations Manual, to be implemented after effectiveness as the CTF hires staff to establish them.

Sub-component 2-1: Commencement Activities - US \$ 0.88 million.

Activities during this period will consist of key tart-up operations using pre-project and GEF financing that will permit early commencement of the second phase of the CTF component shown below. More specifically, activities will include:

- selecting and upgrading administrative offices;
- purchasing office equipment, furniture, and supplies;
- employing short-term technical assistance;
- procuring vehicles for use in CTF activities;

Sub-component 2-2: Commencement Activities - US \$ 4.12 million.

These will consist of activities such as staffing, training, building communications and other infrastructure; operationalizing financial, administrative and other procedures; preparing monitoring and reporting systems; and carrying out a series of demonstration projects. Activities will include:

• contracting a qualified organization with extensive experience in management of environmental funds

to assist the staff and Board in developing their administrative procedures;

- hiring and training of CTF staff;
- hiring of asset managers and development of an investment plan;
- establishment of criteria and indicators of CTF performance, and a process to monitor and report results:
- establishment of financial audit and control systems to international standards;
- commission and adoption of a comprehensive and detailed fund raising plan;
- implementation of stakeholder meetings to solicit input on how best to carry out CTF's mission and operations;
- establishing working relationships with other programs of relevance, such as: the National Forest and Conservation Action Plan (NFCAP), Targeted Community Development Program, GEF Small Grants Program, and international agency projects (e.g., UNDP, European Union, bilateral donor agencies);
- provision of training and other technical assistance for initial potential grantees;
- technical assistance funding to capable NGO and government organizations for the purposes of assisting landowners to conceive, plan and implement demonstration CTF projects in selected areas;
- funding of demonstration projects, including micro-projects, which pilot various approaches and grant types.

Sub-component 2-3: CTF Endowment Phase - Cost US \$10.00 million.

Under this sub-component the CTF would establish the endowment based CTF; and carry out investment implementation, and monitoring and evaluation activities, which will include:

- organizing a major donors roundtable meeting to report on the CTF commencement phase results;
- developing a strong monitoring and evaluation scheme for the project investment program, and for CTF administration, governance and financial management;
- evaluating monitoring results for each demonstration project and on an ongoing basis, developing aggregate indices to establish improved performance trends;
- preparation of annual reports to donor agencies and interested parties detailing progress of the CTF and documenting compliance with donor and other requirements, and publish other materials (e.g., Lessons Learned) that draw upon monitoring data and evaluations;
- outlining endowment capital needs and identify potential donors, and produce a comprehensive and detailed fund raising plan for building the endowment;
- securing external contributions to the permanent endowment;
- identifying and building support for and initiating the securing of domestic sources of funding.

Project Component 3 - US\$ 8.71 million Sustainable Forest Management

17. Objective and scope. This component will augment the efforts of the Forest Authority and others in pursuit of sustainable management of Papua New Guinea's forests, ie. long-term management of selected forests for sustainable production together with the conservation of areas of environmental risk and the setting aside of sufficient forest to maintain ecological and biodiversity integrity. The component will also aim at providing greater equity in the distribution of benefits from the forests among the relevant landowners as well as their enhanced participation in the forest management and conservation process. The component will provide institutional strengthening and technical assistance to improve FA capacity with regards to forest management planning and monitoring. It will also provide for the introduction of sanctions and incentives to promote sustained yield forest management and conservation among forest exploiters in areas that are being commercially managed for timber production. The Component will

achieve these objectives through inter-related activities contained in three sub-components.

- 18. Sub-component 3-1: Improved Forest Operations, Inspection and Monitoring. Cost US \$3.72 million Improved performance by industrial-scale logging operations will be encouraged by implementing field reviews and other measures to ensure full compliance with the logging code of practice and forest legislation and regulations, and by promoting improved practices by the private sector. This will include the introduction of incentives and sanctions to promote more efficiency, less waste and improved forest regeneration prospects. An assessment will be made of the system of monitoring and enforcement of the codes and regulations related to logging, and efforts made to ensure such systems are made more effective and cost efficient. FA will be assisted in ensuring that management and tendering of new forestry projects fully complies with procedures and regulations established in the Forestry Act and all gazetted forestry and environmental legislation and regulations.
- 19. Emphasis will be placed upon improving the administration of financial revenue collection in FA. The current system of forest royalties, charges and levies will be reviewed. Recommendations will be made on rationalizing these bearing in mind the costs and benefits of logging and the practicality of applying some of the levies, such as the Project Development Levy (PDL). Revenue collection systems will be reviewed and recommendations made on more efficient collection, and the apportioning of funds between NFS and Treasury.

20. Proposed activities will include:

- · design and implementation of adequate performance bonds;
- identification and instigation of the means by which to enhance the capacity of Government to use existing legislative and regulatory sanctions against non-performing companies when the need arises.
- in-depth reviews of FMAs established and Forest Permits, to ascertain compliance with forestry and environmental regulations and guidelines. This review would follow up the review being undertaken of proposed timber permits and extensions associated with the moratorium on the issuing of new timber permits and extensions imposed as a condition for negotiations;
- reviewing existing operations to assess compliance with logging code of practice and the
 operational efficiency of forest industry operators as well as the effectiveness and efficiency
 of the monitoring system and structure. This review will also serve as a baseline for any
 improvements required for the monitoring system;
- identifying where institutional inadequacies exist in present monitoring and enforcement of LCP occur, and establishing, as required, a more efficient system and structure for monitoring, reporting and enforcing codes and standards in logging operations, making use of available resources within NFS, but also considering the role that both industry and landowners may play;
- · investigation of development of a system whereby operations that are reviewed (inspected) provide funding for the review (i.e. the user pays for the inspection);
- strengthening of the logging code of practice as required (linking with AusAID activities in this area);
- assistance on training in more cost efficient logging operations management and alternative approaches to sustainable forest management for industry operators;
- review of the current system of forest royalties, taxes, and levies, including the practicality imposing some charges as well as review of the forest revenue collection procedures and monitoring;
- · rationalisation of forest charges in relation to securing adequate rent return to landowners for

- trees cut and compensation for potential rent loss because of associated forest destruction, while bearing in mind reasonable forest harvesting and production costs and the profitability of such operations;
- · investigation of the feasibility of an environmental levy to support the Conservation Trust Fund and for a refundable reforestation levy to ensure compliance with reforestation prescriptions (refer Sub-Component 3.3);
- agreement from all relevant parties on establishing an equitable and rational system of forest charges, improved log tracking, and more efficient revenue collection by the FA;
- consideration of the revenue implications if the NFS were to be financially self-sufficient.
- 21. Sub-component 3-2: Forest Management Planning. Cost US \$1.83 million The objective will be to increase GIS data exchange and availability for the purpose of assessing forest management and land suitability assessment for various forest management regimes (including conservation of biodiversity). GIS capability will be upgraded in OEC, while FA's capacity to integrate such environment and conservation data into forest management will be enhanced. National forest management planning capacity at both the national and project site levels will be improved, while continuing research into improving forest management, cut control and silvicultural practices will be supported. These planning exercises will be linked to revision of the National Forest Plan.
- 22. Supported forest management planning activities will include:
 - strengthening the GIS capabilities in OEC with appropriate computer hardware, updated software, additional staff and training;
 - support to strengthen institutional GIS hardware and software capacity within NFS to handle the delineation of environmental sensitive and biodiversity areas in FMAs and timber permits;
 - ensuring institutional capability exists within NFS to interface all GIS data provided from OEC and other stakeholders for forest management planning purposes and land suitability analysis:
 - methodology for integration of priority conservation needs identified by BIORAP and CNA into forest planning;
 - establishing guidelines and protocols between NFS and forest industry for the identification and removal of the required conservation areas from potential production forests;
 - ensuring the capability is present in NFS to identify optimal sites for conservation set-asides within production forest areas for new forest projects, in order to protect important endemic species and ecological areas;
 - further development of a system of national or regional conservation planning whereby conservation set asides within forest projects are sited and developed strategically to yield the greatest conservation benefit taking into consideration ecological processes such as migration and watershed management;
 - · recalculation of the AAC for logging projects and hence for each province in light of the data from the growth and yield plots;
 - supporting research into improved sustainable management and silvicultural prescriptions
 associated with forest logging, including a review of cutting cycles, cutting limits and tree
 removal above those limits based on species scarcity in the stand, and upgrading the National
 Forest Development Guidelines;
 - upgrading of the national and provincial forestry plans incorporating updated management data based on revised cutting cycles and AACs;
 - review of the FMA proforma document and, on a joint basis between PNGFA, OEC, and landowner representatives, revise the document to make it more relevant to sustainable

- management of the forests, including both logger and landowner responsibilities for forest management and monitoring;
- in collaboration with the AusAID HRD Project, OEC and forest industry representatives, review and update the LCP to include revisions relevant to forest management as well as environment and soil conservation.

Sub-component 3-3: Post-Harvest Forest Management, and Plantations - Cost US \$3.16 million.

Natural production forest management will be improved by expanded application of viable management prescriptions and post harvest activities that attempt to more adequately maintain the forest's production potential. Initially this sub-component will determine the viability of natural regeneration programs within PNG, considering such aspects as security of the regenerated resource and cost/benefit analysis. Assuming a reasonable degree of viability the sub-component will then build on and scale up activities that are being piloted by NFS in West New Britain and Western provinces. However, ongoing research, started through AusAID programs, into the potential for natural regeneration of merchantable species and the required pre- and post-harvesting prescriptions to promote such regeneration will also be supported. Ultimately, responsibility for effective regeneration will be delegated to logging companies, with landowner participation, as appropriate.

Work will be undertaken to determine the feasibility of large-scale industrial plantation development by the private sector in PNG and the conditions necessary to encourage such development. Plantations are not seen as a substitute for long-term natural forest management, but as an option for already degraded forest lands and to help maintain or even increase forest production. Existing NFS plantations will be assessed and, as appropriate, managed. They will act as demonstrations and provide growth and yield data. Incentives required to attract investors will be identified, including: necessary financing arrangements, feasible land tenure agreements, market potential for plantation wood and the links to such markets, the financial and technical feasibility of developing such plantations, and the appropriate investment climate.

Activities will include:

- a study to determine the viability of natural regeneration systems being proposed or implemented;
- · augmenting the capacity of the regeneration unit in NFS to support for regeneration activities;
- review of the results of regeneration treatments under KGIDP and others conducted by NFS;
- establishment of further regeneration trials/demonstrations in forest types not covered adequately by existing treatments and monitoring of all such trials;
- · refining and development of regeneration methodology and treatment prescriptions;
- development and implementation of a strategy, together with regulations and guidelines, to effectively have logging companies accept responsibility for natural regeneration, in collaboration with landowners, on existing and new concessions, including the necessary amendments to FMAs and permit agreements to facilitate such regeneration operations;
- contractual agreements with logging companies and landowners at a minimum of four pilot natural regeneration sites and implementation of such pilots with support from NFS, landowner liaison officers, FRI and provincial forestry staff;
- expansion of post-harvest regeneration program beyond pilots using lessons learnt
- · establishment of a plantation investment promotion unit;
- a national level process to identify potential sites for plantation development, and consideration of development of a land bank for plantation establishment;

- development of a strategy that rationalises the establishment of plantations for production purposes based on solid market access and financially feasible options;
- revision of the policy on reforestation and plantations to support and encourage private sector investment, while ensuring equitable distribution of benefits to landowners;
- feasibility study for investment in plantation projects, including plantation products market investigations, potential contractual arrangements between landowners and investors, species growth and yield potential, and financial feasibility that includes judicious risk analysis;
- · financial support for existing NFS plantation rehabilitation and management and the establishment of new plantation trials or demonstrations;
- · developing a plantation promotion prospectus and soliciting of potential plantation investment from financing agencies, private investors and landowners.

Project Component 4 - US\$4.68 million

Environmental Assessment and Monitoring.

Objective and scope. This component will support adequate environmental screening of all forest development projects by OEC. A full evaluation of projects is needed to ensure that forest amenities such as biodiversity conservation and watershed protection are fully considered and management practices are appropriate to site-specific ecological circumstances. Technical assistance to develop institutional capacities will be provided, so that OEC can fully exercise its environmental and regulatory mandate for the forestry sector.

Sub-component 4-1: Environmental Assessment, Monitoring and Regulation - Cost US \$3.86. This activity will develop and test rigorous assessment and monitoring methodologies and operational systems under the new environmental regulatory framework being enacted under the AusAID-assisted Environment Act legislation. Experienced environmental assessment and enforcement professionals will be based in OEC's Environment Division. They will assist it to undertake environmental assessments of forest projects, and will provide counterpart training and assist in developing operational manuals.

This sub-component will also support legislative and regulatory reform proposals, including the new Environment Act. It will provide for any subsequently needed policy development, training or management activities

Activities under this sub-component will:

- · provide support for field-based environmental planning approvals, permit condition-setting, inspection and enforcement within the forest sector under a new regulatory framework;
- · carry out counterpart training of assessment and enforcement staff;
- develop environmental permit application and (user pays) management fee system options, and assist with implementing the chosen approaches;
- provide further technical assistance and workshops to assist formulation of a full range of policies and procedures under a new Environment Act, relevant to the forest sector;
- support outreach to explain and build support for the new environmental regulatory framework;
- develop clear criteria and a systematic approach for reviewing old environmental approvals, in order to bring them in line with the new Act's standards.

Sub-component 4-2: Environmental Monitoring by Local Communities - Cost US \$0.83 million. This activity will augment government activities, by providing training and technical assistance to selected individuals or groups living within conservation areas and sustainable forest concession projects, so that

they can monitor activities in conservation and sustainable forest management.

Activities will:

- · develop systems, training inputs, a methodology and a legal basis for environmental monitoring by community members;
- · develop collaborative methodology and materials to train community-based environmental and forest concession monitors;
- ·test procedures and pilots in a representative set of conservation and forestry projects.

Annex 3: Estimated Project Costs
PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

	Local	Foreign	Total
Project Cost By Component	US \$million	US \$million	US \$million
Landowner Forest Decision-Making	5.49	4.35	9.84
Conservation Trust Fund	3.77	10.87	14.64
Sustainable Forest Management	3.11	4.98	8.09
Environmental Assessment and Monitoring	2.21	2.11	4.32
Total Baseline Cost	14.58	22.31	36.89
Physical Contingencies	0.07	0.15	0.22
Price Contingencies	0.92	0.98	1.90
Total Project Costs ¹	15.57	23.44	39.01
Front-end fee		0.82	0.82
Total Financing Required	15.57	24.26	39.83

	Local	Foreign	Total
Project Cost By Category	US \$million	US \$million	US \$million
Goods	0.35	1.34	1.69
Civil Works	0.25	0.08	0.33
Services and Training	3.11	8.13	11.24
Grants and Awards	2.84	11.36	14.20
Recurrent Costs	8.02	1.41	9.43
Physical Contingencies	0.07	0.15	0.22
Price Contingencies	0.92	0.98	1.90
Total Project Costs ¹	15.56	23.45	39.01
Front-end fee		0.82	0.82
Total Financing Required	15.56	24.27	39.83

Annex 4: Cost Benefit Analysis Summary PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

[For projects with benefits that are measured in monetary terms]

	Present Value	of Flows	Fiscal Impact	
	Economic Analysis	Financial Analysis ¹	Taxes	Subsidies
Benefits: Benefits	55.9	23.3	6.0	1.5
Costs:	22.2			
Net Benefits:				
IRR:	23			

If the difference between the present value of financial and economic flows is large and cannot be explained by taxes and subsidies, a brief explanation of the difference is warranted, e.g. "The value of financial benefits is less than that of economic benefits because of controls on electricity tariffs."

Summary of Benefits and Costs:

In Annex 4.3, the incremental cost analysis for the GEF financed components of this project - principally the Conservation Trust Fund Component - is presented. No further analysis of the economics of this component is undertaken in this analysis.

This economic evaluation incorporates the Landowner Decision-Making component, the Environmental Assessment and Monitoring component, and the Sustainable Forest Management component of the project. While many of the benefits of landowner involvement and environmental assessment are difficult to quantify, the design of this project is based on the precept that these components are both essential to the achievement of sustainable forest management in Papua New Guinea, for which at least some quantification of benefits can be done. Details of benefit assumptions are included in a working paper completed for this project. The benefits included in the calculation of returns to the three components are:

- an assumption that achievement of sustainability will encourage a (small) amount of carbon offset investment in PNG's forests, amounting to an annual purchase of 1000 ha of carbon forest, from year 4 of the project onwards, at a price of \$10 per tonne of carbon sequestered by such investment:
- an estimate that introduction of resource prices and methods of sale, and the correct incentives for logging operations to utilize the resource both more efficiently, and more carefully (in terms of the state of the regenerating forest) will yield a net increase in value to the sector as a whole of \$0.80 per cubic metre of log volume extracted;
- an estimate that the value of improved soil and water management under sustainable forest management will amount to \$2 per hectare of forest area logged over, for a period of 8 years, after which this effect is assumed to reduce to zero.

The costs of the project are taken to be those estimated for the three components, and an estimate of costs the private sector would incur to adapt logging operations to sustainability guidelines and codes of practice. The costs are shown in the table below (units \$million):

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Sustainable Forest Mgt.	1.878	2.231	1.345	1.042	1.225	.968
Landowner Decision. Environment	1.702 0.744	1.303 0.808	1.321 0.646	1.427 0.723	1.120 0.616	1.120 0.504
Assessment Additional Costs to Logging Firms	0.500	1.000				

The base case benefit cost and rate of return calculations, as shown in the table, indicate that returns to investment in sustainable forest management, including the cost of important related investments in landowner participation in forest management, and an effective environmental assessment and monitoring system, are quite favorable. Since, as will be outlined under <u>Main Assumptions</u> below, these calculations are based on highly conservative estimates of benefit parameters (which also involves complete exclusion of benefits known to be important, but difficult to quantify), it is concluded here that the general case for investment in sustainable forest management in Papua New Guinea, as proposed in this project document, is sound.

Main Assumptions:

For reasons explained in more depth in the working paper, it is not possible to compare sustainable forest management to forest land conversion options in PNG in an analytical way, at present. The limitations on investment capital to allow conversion at any scale comparable with that of the forests, the uncertainties of market outcomes when high volumes of agricultural or tree crop products that would result from such conversion are placed on the market, the general lack of knowledge about what are efficient market prices for standing log volume, and even more so for other forest goods, services and values, so that valid comparisons with alternative land uses can be made, all render attempts to calculate comparative outcomes from the national economic viewpoint impossible.

Under these circumstances, the best that can be done is to place values on some of the benefits that will arise from sustainable forest management, and assess whether these alone comprise a reasonable economic return to this activity. It can safely be assumed, in the Papua New Guinea context, that the social, cultural, general environmental and biodiversity protection impacts of retaining effective forest cover are preferable to conversion options. Thus, if the opportunity costs of retaining forest under sustainable management (linked, of course, to complete protection of areas of high biodiversity value) are shown by this exercise to be low, or zero, then the project is justified.

To ensure that this calculation does not overestimate the sum of goods and services from forest retention generated by sustainable management, where specific benefits can be quantitatively estimated in some way, they are done so most conservatively in this analysis. And, where the quantification of a benefit is difficult, even if that benefit is widely recognized as highly valuable (biodiversity protection is such a case), then no value is assigned to it in this analysis.

Some of the basic assumptions made in the analysis are:

• the basic difference between sustainable and non-sustainable forest management in Papua New

Guinea is not the same as in countries such as Indonesia, or the Solomon Islands, where volumes well in excess of the national increment the forest is capable of producing are being extracted. In PNG, many specific logging operations currently in place are unsustainable in the particular forest area in which they are occurring, so that clan groups and others directly associated with that area will face a non-sustainable situation, and some immediate consequences from the environmental impacts of poorly managed forest operations. In the longer run, if individual logging operations are permitted to log in a manner which reduces (or eliminates) the capacity of that forest area to regenerate effective forest cover, then the overall capacity of PNG's forest estate to produce log volume, and the range of other forest goods and services, will be reduced even in the situation where the aggregate volume of logs being removed does not exceed the estimated sustainable national cut (managed under the correct slivicultural and management prescriptions);

- · log volume output is assumed in this analysis to rise from 2.5 million cubic metres in year 1 of the project (current monthly outputs from PNG suggest an outcome in this order) rising to 3.3 million cubic metres in perpetuity after 2 years, by which time it is assumed the Asian markets for logs will have recovered from the current economic downturn in the region, to some extent. This latter figure is not as high as some annual output figures in the recent past, prior to the downturn, but is assumed to be all that GOPNG will want to approve for export under new sustainability guidelines, and the capacity of official forestry agencies to manage this process;
- the period of analysis is 25 years. This excludes any valuation of standing timber of harvestable size which returns to the stand after logging, since the period which needs to elapse before second rotation harvesting can take place under sustainable conditions in PNG will be at least 35 years, and in many cases probably longer. At reasonable discounting rates in the developing country context, the present value of such standing timber is marginal, unless assumptions about significantly increasing real prices for such material are made for the second rotation. This argument may actually have some merit, for this type of forest, but it cannot be evaluated in any analytical way, and it is excluded from the base case analysis here;
- no value is assigned to biodiversity benefits from sustainable forest management, and no general
 value for the carbon sequestration benefits from sustainable management are included only a
 minimal amount for the small fraction of this which PNG might actually be able to sell to
 international purchasers is included. No value is assigned to the social, cultural and economic
 benefits which would accrue to clan groups being able to continue their traditional forest
 dependent way of life, under sustainable forest management as opposed to conversion.

Sensitivity analysis / Switching values of critical items:

- the most sensitive factor in this analysis is the \$0.80 per cubic meter estimate of net value added to the sector through implementation of sustainable forest management. If this is reduced by 50%, the ERR for the project becomes 9%, and the benefit cost ratio declines to 0.9, at a 12% discount rate. It is for this reason, as explained in the working paper accompanying this annex, that an extremely conservative value for the net value added to the sector from sustainability was employed in the base case;
- the impact of reducing the estimate of soil and water impacts is less: eliminating this benefit reduces the ERR for the project to 24% and the BCR to 1.42;
- the impact of reducing the carbon impact from sustainability is likewise not particularly sensitive: reducing the price of carbon traded by 50% (or the area of forest assumed in the analysis to enter trading in this way) reduces the ERR to 21%, and the BCR to 1.29;
- the analysis is relatively sensitive to changes in costs assumptions, due to the incidence of these early in the cycle. A 10% aggregate rise in costs reduces the ERR by 12% and the BCR by 15%, to 21% and 1.33 respectively.

Global Component, Conservation Trust Fund Incremental Cost Analysis

Broad Development Goals

Papua New Guinea's (PNG) forests are part of the so-called Malesian phytogeographical zone which extends from Peninsular Thailand in the northwest to PNG and adjacent islands in the southeast. PNG covers 46.3 million hectares, of which about 36 million ha are still covered by closed natural forest; ranging from high altitude cloud and montane forests in the highlands, hill forests on the slopes, to lowland mixed forest and mangroves nearer the coast. PNG's forests are currently the least degraded forests in this region, but the current trend is for most of these forests to be industrially logged. PNG has a very limited land area under protection and conservation status.

The Forest Act (1993) provides the primary foundation for efforts to reform the PNG forest sector. The Act has set the basis for sustainable utilization of forest resources. It addresses the need for a decentralized decision making process in regards to PNG's forest resource allocation. The World Bank's 1995 Economic Recovery Loan provided a strong set of forest conditionalities which are designed to move the industry towards more sustainable commercial harvests and provide the policy framework necessary for conservation set-asides. The government's medium term development strategy highlights the importance of sustainable forest management and transparency in the forest sector.

The key development objectives of the Forest and Conservation Project are to:

- a) improve landowner participation in forest use decisions, their access to the benefits of sustainable forest management, their awareness of forest management and conservation issues, and accessibility to a conservation designation for their land;
- b) establish a mechanism for providing significant, sustainable in-country funding for conservation area establishment coupled to community-driven sustainable resource use;
- c) improve the capacity of GOPNG to plan, implement and enforce sustainable and environmentally responsible forest management; including a broadening of forest management options; and
- d) upgrade the GoPNG's capability to assess the environmental acceptability of forest resource operations and review or reject proposals accordingly, to be followed by regular and effective monitoring.

Baseline

In the absence of GEF support, the focus of the government efforts in the forestry sector would be on upgrading the performance of commercial forest operations so that exploitation of the country's rich timber resources is done in a more sustainable manner with less negative environmental impact. Additionally, there would be some effort to achieve more diversity in the type, scale and intensity of forest management activities and to strengthen landowner involvement. This would involve continued reform of forest sector policies, creation of field capabilities for monitoring timber operations, and strengthening of environmental assessment and enforcement institutions. A modest share of donor support to the forest sector would likely be directed to enhancing biodiversity conservation, most probably by supporting a biodiversity conservation trust fund.

a) Landowner Forest Decision-Making—Under the baseline scenario, support will be provided for a program to make landowners better equipped to make critical management decisions over use of their forest lands. Landowners would be provided information and tools to consider and implement options for sustainable forest area management. Cost \$6.4 million.

- b) Conservation Trust Fund—Under the baseline scenario, it is expected that donor organizations active in the realm of alternative development options, such as AusAID, other bilateral donors and international NGOs, could reasonably be expected to redirect approximately \$5.0 million of their expected biodiversity conservation financing into a conservation trust fund.
- c) Sustainable Forest Management—Control over destructive forest logging operations will be improved. The emphasis will be upon minimizing environmental impacts of production forestry and ensuring it maximally contributes development. Cost \$8.1 million.
- d) Environmental Assessment and Monitoring—There is to be a major effort to ensure that environmental assessment and monitoring of proposed forestry and other development projects are diligently carried out. Cost \$4.3 million.

Implementation of the Baseline Scenario is expected to cost approximately \$23.8 million. This program is expected to produce a more sustainable forest industry, reduced environmental impacts, more diversity of forest management type and scales, and more involvement of landowners in production forest area management decisions. Biodiversity impacts would generally be positive and include strengthened capacity to assess environmental impacts of development projects, enforcement of timber regulations to protect waterways and sensitive sites and some individual conservation projects. However, biodiversity values would not be fully integrated into sector policy development and timber operation planning and implementation. Significant, unmet demand for alternative conservation-based development options from landowner communities would continue, due to the lack of a long-term compensatory financing mechanism.

Global Environment Objectives

The global environmental objective is to better conserve the rich biodiversity and important ecosystem functionality of Papua New Guinea's rainforests. It achieves this by establishing conservation areas and community based sustainable management (the GEF alternative), with sustainable, environmentally responsible forest harvest of natural forests in other areas (the baseline and other project components).

Specific objectives in pursuit of global environmental benefits include: (i) establishment of a conservation strategy that is culturally appropriate, optimally harnesses customary land tenure, and facilitates widespread conservation and sustainable development activities that maintain biodiversity and ecosystem values over large rainforest expanses; (ii) maintenance of effective forest cover, especially in areas near sensitive conservation sites; (iii) establishment of a financial mechanism able to support landowner based conservation activities; (iv) promotion of increased landowner participation in, and benefits from, sustainable management and conservation activities.

GEF Alternative

The GEF alternative comprises:

a) Landowner Forest Decision-Making—Landowner forest decision-making baseline activities will incorporate a specific conservation focus. This would include development of a policy framework and mechanism that allows land groups to declare their lands as conservation and sustainable-use areas. This requires revision of policy and procedures for securing landowner-initiated conservation designation, greater emphasis upon conservation awareness and education, outreach activities and legal advice for landowners wishing to pursue conservation. Total cost: \$8.4 million.

- b) Conservation Trust Fund—Under the GEF Alternative, financial assistance would be provided to support landowner based alternatives to large-scale logging and establishment of conservation and sustainable-use activities in forest areas. The required funding was calculated by estimating the resources generated from royalties on large scale logging operations and the level of landowner community demand for alternative livelihood and conservation options (see Attachment 1). Based on this analysis, it appears that about \$2 million is needed on an annual basis to support a full range of conservation-related activities. This would be achieved by establishing a long-term financing mechanism, which would be funded on a sinking fund basis during a demonstration phase (\$5.8 million) and, if successful, on an endowment basis thereafter (\$30.0 million, of which \$10 million GEF, \$20 million other donors). Total cost: \$35.0 million.
- c) Sustainable Forest Management—same as for baseline. Total cost: \$9.2 million.
- d) Environmental Assessment and Monitoring—same as for baseline. Total cost: \$4.2 million.

Total cost of GEF Alternative: \$56.8 million

Incremental Costs

The cost of the baseline scenario is estimated at \$ 24.8 million (base costs). The GEF alternative is estimated at \$56.8 million, resulting in an incremental cost of approximately \$ 32 million. In keeping with the GEF operational principle of leveraging GEF resources, cost-sharing for the endowment mechanism will be an integral feature, relying on domestic and international resources. The GEF is therefore asked to fund \$17 million of the incremental cost. GEF funding would comprise \$ 6 million for Phase 1 and \$11 million for Phase 2. GEF funding for the endowment component of Phase 2 (\$10 million) would be conditional on successful implementation of trust operations in Phase 1, matching commitments to the endowment from other donors, and demonstrated demand for funds for conserving forests of high biodiversity value. The remainder of the total incremental cost will be borne by co-financiers.

Attachment 1

- 1) Present flow of royalties direct to landowners from logging operations in PNG is approximately US\$ 15 million/year.
- 2) Indications from landowner awareness and other activities are that at least 30% of landowner groups would prefer (or at least agree to) activities other than commercial logging in their areas. It is highly likely that at least half of the sites involved in this figure would merit investment in conservation or low-impact sustained use management. Thus, some 15% of landowners involved in large-scale logging are expected to be interested in financing for alternative conservation based activities.
- 3) In order to expect that conservation activities be pursued in any particular area, it is reasonable to assume that income bearing alternatives to logging in such areas would require at least the equivalent of the royalty yield to become established.
- 4) Combining these estimates (US\$15 x .15), it is suggested that an annual flow of approximately US\$2 million would be needed to support a program large enough to take up anticipated demand for alternatives to commercial logging. This would require an endowment trust fund that is capitalized to at least the US\$ 30 million mark.

Component	Cost Category	Cost (US\$ million)	Domestic Benefit	Global Benefit
Landowner Forest Decision-Making and	Baseline	6.4	Larger and more sustainable benefits	
Project Management Unit	PMU	3.5	from forests, and more equitable distribution	
	GEF Alternative	8.4	Same as above, plus landowners can access conservation option in addition to sustainable use option	Enhanced conservation of biodiversity in conservation areas through voluntary action
	Increment	1.5		
Conservation Trust Fund	Baseline	0		
	GEF Alternative (inclusive of assumed additional donor participation)	35.0		Significantly enhanced and sustainable conservation of biodiversity
	Increment	30.0		
Sustainable Natural Forest Management	Baseline	8.1	More sustainable benefit flows from forest harvests	Less destructive logging helps to conserve biodiversity in production forests
	GEF Alternative Increment	8.7 0		P
Environmental Assessment and Monitoring	Baseline	4.3	Minimization of adverse environmental impacts of development projects	Some enhancement of biodiversity conservation in production forests
	GEF Alternative	4.7	<u></u>	•
	Increment	0		
Total	Baseline	18.8		
	GEF Alternative	56.8		
	Incremental Cost	32.8		

Annex 5: Financial Summary PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

Years Ending 2007

	IMPLEMENTATION PERIOD						
Ī	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Financing	-	-		•		•	
Required							
Project Costs							
Investment Costs	4.6	4.3	2.7	13.0	2.8	1.5	28.8
Recurrent Costs	1.4	1.8	1.8	1.9	1.9	1.5	10.2
Total Project Costs	6.0	6.1	4.5	14.9	4.7	3.0	39.0
Front-end fee	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Financing	6.0	6.1	4.5	14.9	4.7	3.0	39.0
Financing							
IBRD/IDA	1.4	3.2	2.7	4.2	3.3	1.5	0.5
Government	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Central	1.1	1.1	0.8	0.8	0.7	0.7	0.0
Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Co-financiers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
User Fees/Beneficiaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	6.0	0.0	0.0	11.0	0.0	0.0	0.0
Total Project Financing	7.4	3.2	2.7	15.2	3.3	1.5	0.5

Main assumptions:

- 1) Conservation Trust Fund is sufficiently successful during Demonstration Phase to attract co-financing for establishment of the endowment phase, and thus 2nd release of GEF funds for establishment of endowment fund occurs.
- 2) Disbursement as shown by Financing Sources occur with a one semester (6 month) lag from the Project Costs.
- 3) GEF disburses its entire CTF Phase 1 (first 3 years) contribution, along with Landowner and Environmental Assessment component inputs, in Year 1 of project implementation. Similarly, GEF disburses their second contribution for their CTF Phase 2 and Landowner components for the last 3 years of implementation in one disbursement.

Annex 6: Procurement and Disbursement Arrangements PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

Procurement

Procurement Assessment. During appraisal, procurement interviews were held with the Procurement Officer in the Forestry Department and with the Technical Advisor to the Department of Works and the Central Supply and Tenders Board. These interviews, in addition to other documents that were reviewed, indicated a decided need to improve existing procurement practices for this project. As a result of the findings of this assessment, it is believed that procurement credibility and project economy would be significantly improved with procurement activities managed as part of a well-organized Project Management Unit (PMU). The project PMU would be staffed, by project effectiveness, with a qualified procurement officer who would be responsible for all project procurement and who would serve as a member of the Forestry & Conservation Project Tender Board (FCPTB)]. In-service training in Bank procurement procedures would be provided as a project expense.

At present, the overall risk assessment of Borrower's procurement capability is rated as "high" but could be significantly improved by modifying the Borrower's existing procurement practices in accordance with the following paragraph. These improvements to existing procurement practices in PNG would significantly reduce corruption and misappropriation of public funds.

In order to improve existing ICB and NCB procurement practices and to increase transparency in the bidding process, Government would provide the Bank with a Supplemental Letter agreeing to: (1) establish an independent Project Tender Board as defined herein;] (2) utilize standard bidding documents approved by the Bank; (3) not limit bidding to National firms or manufacturers; (4) make bid evaluation procedures available to all bidders; (5) open, read aloud, and tabulate the results of sealed written bids in the presence of bidders representatives; (6) inform all bidders in writing of the bid evaluation results; and (7) develop a timely and effective bid protest procedure acceptable to the Bank.

Procurement Guidelines. Procurement of all goods, works, and other contracted services under the project, regardless of funding source, would be carried out in accordance with the provisions of the Bank's "Guidelines Procurement under IBRD Loans and IDA Credits" published by the Bank in January 1995 and revised in January and August 1996, September 1997, and January 1999. The World Bank's Standard Bidding Documents would be used for procurement of goods and works using ICB procedures, and NCB as far as practical.

As this project includes procurement based upon ICB procedures, a General Procurement Notice (GPN) is mandatory and would be prepared by the Borrower and updated annually for all outstanding procurement and forwarded to the Bank for publication in the United Nations' "Development Business" as provided for in Para. 2.7 of the Guidelines.

Consultants' services would be procured in accordance with the provisions of the Bank's "Guidelines Selection and Employment of Consultants by World Bank Borrowers" published by the Bank in January 1997, and revised in September 1997, and January 1999. Consultants' Terms of Reference and qualifications would be reviewed and found acceptable by the Bank. The Bank's Standard Request for Proposals, Selection of Consultants dated July 1997, revised April 1998 and July 1999, would be used for consultant contracts with firms.

Prior to contracts being awarded by the Project Management Unit (PMU), they would be reviewed and a written evaluation would be made by a three-member ^{1/2} FCPTB appointed by the Minister of Finance. Prior to negotiations, the Project Manager would be employed and the Project Accountant would be appointed by Government upon terms and conditions satisfactory to the Bank.

Civil Works: Civil works for the project are estimated to cost about US\$0.40 million equivalent (Financing: BANK US\$0.18 million, GEF US\$0.04 million, GOPNG US\$ 0.18 million). Civil works would include upgrading or establishment of regional offices for the Sustainable Forest Management component and the Environmental Assessment & Monitoring component; office renovations for the Conservation Trust Fund (CTF); and staff housing for the Sustainable Forest Management component. National Competitive Bidding (NCB) procedures using the Bank's standard bidding documents for very small works contracts, or other bidding documents satisfactory to the Bank, would be used for all civil works contracts costing up to US\$200,000 each. Prior review of documents by the Bank would be required for all contracts with value of US\$50,000 equivalent and over.

Goods: Goods for the project are estimated to cost about US\$1.95 million equivalent (Financing: BANK US\$1.61 million, GEF US\$0.12 million, GOPNG US\$0.23 million). Goods to be procured would include vehicles, office furniture and equipment, computers and associated equipment, field equipment and communication equipment for use by the IAs. To the extent possible and practicable, contracts for goods and equipment would be combined into packages estimated to cost the equivalent of US\$100,000 or more. Goods contracts estimated to cost less than US\$100,000 each, up to an aggregate amount not to exceed US\$400,000 equivalent may be procured through NCB procedures. Goods contracts estimated to cost US\$100,000 or more would be bid using ICB procedures. Procurement of readily available, off-the-shelf goods or standard specification commodities, valued less than US\$20,000 per contract, up to an aggregate amount not to exceed US\$100,000 equivalent may be procured using shopping procedures acceptable to the Bank, with comparison of written quotations from at least three eligible suppliers. The aggregate value of goods procured using ICB procedures is estimated at US\$1.45 million. Vehicles and computer equipment would be packaged and bid using ICB procedures. All goods procured using ICB procedures would be subject to the Bank's prior review in agreement with Appendix 1 of the Guidelines. Goods packaging for the first project year would be presented at negotiations for the Bank's review and "No Objection".

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Members of the Board would consist of one well-known and respected person from the private sector and two government employees plus the PMU Procurement Officer. The Board would be Chaired by the PMU Procurement Officer.

² Costs shown as totals in the following sections may vary due to a rounding factor.

Margin of Preference. A margin of preference would be applied to goods manufactured in the territory of the Borrower in accordance with Paragraphs 2.54 and 2.55 and Appendix 2 of the Guidelines.

Services. Services are estimated to cost about US\$11.08 million equivalent and would include technical assistance, seminars, workshops, and training. (Financing: BANK US\$8.76 million, GEF US\$1.37 million, GOPNG US\$ 0.96 million). The project envisages about 500 person months of technical assistance over the first three years. Terms of reference for technical assistance would be prepared by each IA with contracts being prepared by the PMU. Technical assistance is estimated to cost about US\$10.06 million equivalent and would include, inter-alia, consultants to assist the Borrower and stakeholders in: (i) improving forest planning, operations, management, and monitoring, and (ii) involving communities participating more actively in forest conservation and environmental protection. Training for the project is estimated to cost about US\$ 1.02 million equivalent and would include seminars, workshops and in-service training designed to strengthen institutional capacity and community capacity to self-manage forest resources.

All contracts with consulting firms with value of US\$100,000 or more would be contracted using Quality and Cost Based Selection (QCBS) with the competitive evaluation being made using the appropriate terms set out in Section II of the Guidelines. Firms whose contract value would be less than US\$100,000 equivalent may be contracted based upon their qualifications for the assignment (CQ as described and in agreement with Section III, Paragraph 3.7. Individuals may be contracted based upon their qualifications for the assignment as described in Section V of the Guidelines. One-year extensions of individual contracts_may be carried out using Single Source (SS) selection procedures as described in Section III, Para 3.8 through 3.11. Consulting assignments estimated to cost greater than of US\$100,000 equivalent would be advertised in the Development Business and a national newspaper seeking "expressions of interest" with the evaluation being made using QCBS procedures. Auditors would be selected using the "Least Cost Selection" procedure as outlined in Section III, Paragraph 3.18, of the Guidelines.

Grants and Subgrants. Subgrants for the project are estimated at US\$16.99 million equivalent (Financing: GEF US\$16.99 million). Grants would be targeted to local communities, individuals, privately owned enterprises, NGOs and other organizations in support of forestry conservation projects. These organizations would have the responsibility to train local youth and/or village groups who, in turn, would supply materials and/or labor to implement conservation activities. Funds deposited into and managed by the Conservation Trust Fund (CTF) would be committed, disbursed, and accounted for according to procedures detailed in the Manual of CTF Operations and agreed to at negotiations.

Recurrent Costs. Project incremental recurrent expenses are estimated at US\$11.11 million and would be financed by the Bank on a gradually declining basis over the life of the project. At completion of the six-year project, financing of recurrent costs would be the Borrower's responsibility. Recurrent costs would include salaries and allowances (US\$5.44 million) for additional incremental contracted staff required to implement the project (Financing: BANK US\$2.79 million, GEF US\$0.57 million GOPNG US\$2.08 million). Also included, as recurrent costs, would be incremental operational expenses (US\$5.67 million) including office supplies and consumables, local travel & per diem, office rental, utilities, and maintenance and repairs to facilities and equipment (Financing: BANK US\$2.60 million, GEF US\$1.52 million, GOPNG US\$1.49 million).

Miscellaneous, locally available off-the-shelf supply items such as pencils, pens, note pads, staples, small office supplies, etc., would be procured annually using shopping procedures. The supplier would make goods available to the PMU and the IAs, within minimum/maximum contracted quantity limits, at the unit price quoted in the contract.

Prior Review Thresholds. Prior review by the Bank would include the following:

- 1. Civil works contracts estimated to cost the equivalent of US\$50,000 or more;
- 2. Goods contracts estimated to cost the equivalent of US\$100,000 or more
- 3. All TORs, short lists, RFPs and employment contracts for each consulting firm or individual estimated to cost the equivalent of US\$100,000 or more for firms, and US\$50,000 or more for individuals; and
- 4. Modifications to all contracts as set forth in Appendix 1, Paragraph 3 of the Guidelines, notwithstanding the contract value.

The above would result in prior review of about 25 percent of all contracts and 40 percent of the amounts financed by the Bank. A systematic ex-post review would be carried out during the planned 2-3 annual project supervision missions resulting in Bank review of about 40 percent of all contracts. Confirmation would be sought on prior review arrangements at negotiations.

DISBURSEMENTS

Disbursement Period. Funds for the project would be disbursed over about a six-year period. The loan is expected to become effective around March 31, 2001. It is estimated that the project would be completed by December 31, 2006 and the loan would be closed no later than June 30, 2007. An estimated delay of about six months has been assumed between contract signing and first disbursement from Bank funds. The annual estimated disbursements are indicated in a table on the first page of this Project Appraisal Document.

Retroactive Financing. An amount equal to US\$ 250,000 of eligible expenditures made after November 30, 1999, may be financed retroactively from the project's Special Account. These funds would be used to accelerate project implementation by allowing a project manager and key project staff to be employed prior to project effectiveness and for limited first-year technical assistance and studies to be commenced.

Loan Allocations. The following table shows the allocations from the loan proceeds. The total cost of the six-year project, including contingencies and taxes is estimated at US\$39.11 million.3/ Local taxes and import duties, estimated at about US\$1.77 million, are included in the total project cost estimates. Payment of taxes and duties would be the responsibility of the Borrower and would not be eligible for financing from loan funds. Parallel financing by the Bank and GEF would fund for the project: (a) about 55 percent (US\$0.22 million) of the US\$0.40 million estimated costs of Civil Works under the project; (b) about 89 percent (US\$1.73 million) of the US\$1.95 million estimated costs of Goods for the project; (c) 92 percent (US\$11.77 million) of the US\$12.83 million estimated cost of Services4/; 100 percent (US\$14.58 million) of the cost of Grants and Awards; and 63 percent (US\$5.88 million) of the estimated US\$9.36 million Recurrent Costs.

Disbursement Procedure. Disbursements for this Project would be aimed toward compliance with the principles and concepts of the Bank's Loan Administration Change Initiative (LACI). Under LACI, semi-annual planning projections would be the mechanism for making disbursement estimates and measuring project performance. Quarterly disbursements would be tied to financial statements, project progress reports, and procurement management reports. Initially the PMU would follow the Banks traditional disbursement system. From the outset, it would move onto Quarterly Project Management Reports (PMRs). The move onto PMR-based disbursements would be considered within 18 months from date of Board Approval.

Until such time as the PMR-based disbursement procedure has become effective, disbursements from the loan would be made against withdrawal applications supported by appropriate documentation until disbursements from the loan would have reached US\$ 1,000,000. Most loan funds would be disbursed through SOEs and PMRs. For all other expenditures, e.g., contracts for consultant services above threshold levels of US\$50,000 with individuals or \$100,000 with firms, goods contracts exceeding US\$100,000, works contract exceeding \$50,000, and all expenditures for training seminars and incremental costs and other contracting services exceeding \$20,000, full supporting documentation would be required.

Parallel Financing. As noted in the main text, the GEF grant is financing aspects of two components of the project in parallel with IBRD. To avoid the possibility of duplication or misclassification of expenditures in these common components, the table below has been added to this annex, and it specifies the purposes for which the GEF financing is to be applied in these components. It constrains technical assistance to the hire of specialists in landowner conservation legislation, training to that directly related to development of extension capacity in the area of landowner conservation activities, and (minor amounts) for recurrent costs incurred by GOPNG in liaising with the CTF specifically on aspects of landowner conservation activities. This specification meets the requirement that the GEF funds address the incremental purposes discussed in Annex 4, and in the main text of this document. It should further be noted that procurement and disbursement of GEF funds used in these two components will be under the direct management of the Landowner Decision and Organizations Unit, which is a part of the Project Management Unit, and therefore subject to the financial and procurement management requirements specified for that unit. This should further assist in avoiding duplication, overlaps or confusion in the allocation of funds from the two sources in these areas.

Parallel GEF Financing Breakdown (US\$ Millions)

Project Component/ Sub- component	Total Allocation from GEF	Tech. Assist. (Conservation legislation specialists)	Training (Landowner conservation extension specialists)	Recurrent (GOPNG agency liaison with CTF)
Landowner Forest Decision				
Making				
Development Options	1.15	0.70	0.20	0.25
Study	0.07		0.07	
- Strengthening LR				
Mechanisms	0.68	0.60	0.08	
- LG Based Cons. and				
Resource Mgt.				
Environmental Assessment				
and Monitoring				
- Env. Monitoring by			0.05	0.04
Local Communities				

Executing Agency Trust Account (EATA). The project would open an EATA account in PNG Kina in a commercial bank in Port Moresby found acceptable to the Bank. As a condition to effectiveness, GoPNG would deposit an initial amount equal to US\$250,000 into this account. This amount is estimated to cover the entire project's expenditures for the first three-month period of operations. As expenditures increase, the amount in this EATA account may need to be increased to meet project expenses. Periodically, as needed, funds would be withdrawn from the Bank/GEF Special Accounts and deposited in the EATA account to cover the reimbursable portion of the Bank/GEF expenses paid from the EATA account. The government would also deposit further funds to replenish is share of expenditures that had been paid from the EATA.

Bank/GEF Special Accounts. Three Special Accounts in Kina would be established in a commercial bank in Port Moresby. The first special account fpr Bank's loan would have an authorized allocation of US\$ 1.00 million equivalent; the second and third special accounts for the CTF GEF Grant and PNG GEF Grant would have an authorized allocation of 500,000 and 200,000 equivalent, respectively, under the control of the PMU. The Bank's initial advance into the first Special Account would be limited to US\$ 500,000. Further deposits, as required, would be made into each of these accounts in line with project advancement expenditures.

The schedule for estimated disbursements on an assumed Bank Loan of US\$17.36 million is shown below.

Schedule of Estimated Disbursements From Bank Loan (US\$ Millions)

Bank Fiscal Year	2002	2003	2004	2005	2006	2007	2008
First Semester	0.76	1.50	1.35	1.95	1.60	0.80	0.54
Second Semester	0.80	1.70	1.45	2.45	1.70	0.75	
Total By Year	1.56	3.20	2.80	4.40	3.30	1.55	0.54
Cumulative	1.56	4.76	7.56	11.96	15.26	16.81	17.35

^{6 /} Including the one percent (1.00%) Front End Fee.

GEF Trust Account for CTF. The Conservation Trust Fund is to be directly responsible for its commencement activities as discussed in Annex 7. A GEF Trust Account would be established in a commercial bank in Port Moresby under the control of CTF with an allocation of US\$ 5.00 million. The initial advance would be limited to US\$ 1.00 million. The trust account would be used for CTF payment and could also be used for advances as necessary to cover overall expenditures in the provinces unsuitable for central payment.

Conversion to PMR. For the purposes of carrying out the Project, deposits into the Special Account and their replenishments would be made on the basis of cash withdrawal statements based initially on Statements of Expenditure. The Project would, by the time of Loan Negotiations, have in place the general ledger specific to the Project and in such detail that it would support the preparation of PMRs and complete the financial sections of the PMU Operational Manual. This system must have undergone an assessment by a Bank Financial Management Specialist as a condition to negotiations. Similarly the PMU would launch a training and action plan to develop the capacity to produce all components of the quarterly PMR, as required under LACI, within 12 months after Board Approval.

PMR Reporting. Following conversion to PMR-based disbursements, replenishments to the Special Account would be based on six-month cash forecasts contained in quarterly Project Management Reports. Each of these reports would: (a) show actual sources and applications of funds for the Project, both cumulatively and for the period, and projected sources and applications of funds for the Project for the upcoming six-months; (b) list separately expenditures financed out of the credit during the period covered by the report and expenditures proposed to be financed during the upcoming six-month period; (c) describe physical implementation progress, both cumulatively and for the period covered, and explain variances between the actual and previously forecast implementation targets; and (d) set forth the status of procurement under the Project and expenditures under contracts financed from the credit for the period covered.

Project Auditing. Project accounts, including contracts and their modifications and amendments, as well as the deposits and withdrawals from the Special Account would be audited each year by an independent auditing firm acceptable to the Bank and under terms and conditions satisfactory to the Bank. In addition to the annual financial statements conforming to International Standards on Auditing (IFAC Standards), the audit report would include comments on the accuracy and propriety of all expenditures. The audit report would evaluate the extent to which supporting information could be relied upon as a basis for requesting disbursements from the loan using PMRs. Audit reports, with the related statements, would be submitted to the Bank within six months of the end of the Borrower's fiscal year. All supporting records would be maintained at the project site for at least one year after the completion of the project for review by the Bank..

Agreements to be Sought. Agreement would be sought at negotiations on a Supplemental Letter to the Loan Agreement under which GoPNG would confirm the establishment of a FCP Tender Board, with an

award level of US\$500,000 equivalent.

Agreement would be sought at negotiations on a Supplemental Letter to the Loan Agreement under which GoPNG would reaffirm that all procurement related decisions in NG66/92 and NEC41/95 would not apply to Bank-financed contracts. This NEC decision of 1992 has never been officially abolished. Following the Bank's intervention on NEC's 1992 decision, the then Department of Finance informed the Bank by letter that the decision NG 66/92 "applies only to contracts funded by the government." It needs to be confirmed that the following procurement specifications would not apply to the FCP:

- i. to reserve all construction contracts valued between K1.0 and K5 million to citizen or national companies;
- ii. to reserve all construction contracts valued between K5 and K10 million to joint ventures and consortium groups where the overseas partner has a maximum of 50% share;
- iii. to open for general bidding only contracts valued above K10 million;
- iv. to award all consulting contracts of up to K100,000 to citizen companies only; and
- v. that bidders (contractors or consultant firms) must be registered with the association of national contractors or consultants in order to participate in bidding which is not acceptable for ICB as it restricts competition.

Procurement methods (Table A)

Table A: Procurement Costs by Procurement Arrangements (US\$ million equivalent)

	International Competitive Bidding	National Competitive Bidding	Other <u>1</u> /	N.B.F.	Total
Civil Works		0.40 (0.18) {0.04}			0.40 (0.18) {0.04}
Goods		(0.10) (0.01)			(0.10) (0.01)
Vehicles	0.84 (0.74) {0.03}				0.84 (0.74) {0.03}
Computers & Associated Equipment	0.61 (0.50) <i>{0.06}</i>				0.61 (0.50) {0.06}
Other Equipment		0.40 (0.29) {0.02}	0.10 (0.08) {0.01}		0.50 (0.37) <i>{</i> 0.03 <i>)</i>
Services Technical Assistance			10.06 (8.12) {0.98}		10.06 (8.12) {0.98}
Training, Seminars & Works	shops	0.23 (0.16) {0.07}	0.68 (0.48) {0.20}	0.12 {0.12}	1.02 (0.64) {0.39}
Grants and Awards		0.49 (0.30) {0.19}	1.47 (0.89) {0.58}	12.62 {12.62}	14.58 (1.19) <i>{13.39}</i>
Incremental Recurrent Costs					
Staff Salaries & Allowances			4.87 (2.79)	0.57 {0.57}	5.44 (2.79) {0.57}
Recurrent Operational Costs		2.76 (1.5)	2.08 (1.16) (0.2)	0.83 {0.83}	5.67 (2.66) <i>{1.51}</i>
TOTAL	1.45 (1.24) {0.09}	4.28 (2.43) {0.79}	19.26 (13.52) {1.98}	14.12 {14.12}	39.11 (17.18) <i>{16.99}</i>

Notes: Totals may vary slightly due to rounding.

Figures in parenthesis as (n.nn) are the respective amounts to be financed by IBRD. Figures in brackets as {n.nn} are the respective amounts to be financed by GEF

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Other Equipment – Local Shopping 0.10 (IBRD 0.08) {GEF 0.01}
Technical Assistance –Consulting Services 10.06 (IBRD 8.12) {GEF 0.98}
Training, Seminars & Workshops – Local Shopping 0.45 (IBRD 0.32) {GEF 0.13} – Direct Contracting 0.23 (IBRD 0.16) {GEF 0.07}
Grants and Awards – Local Shopping 1.47 (IBRD 0.89) {GEF 0.58}
Staff Salaries and Allowances – Direct Contracting 4.87 (IBRD 2.79)
Recurrent Operational Costs – Local Shopping 1.33 (IBRD 0.75) – Direct Contracting 0.27 (IBRD 0.15)

Table A1: Consultant Selection Arrangements (optional)

(US\$ million equivalent)

				Selection	Method			
Consultant Services Expenditure Category	QCBS	QBS	SFB	LCS	CQ	Other	N.B.F.	Total Cost
A. Firms	5.48	0.00	0.00	0.00	6.63	0.00	0.00	12.11
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
B. Individuals	0.00	0.00	0.00	0.00	2.50	0.11	0.00	2.61
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Total	5.48	0.00	0.00	0.00	9.13	0.11	0.00	14.72
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

1\ Including contingencies

Note: QCBS = Quality- and Cost-Based Selection

QBS = Quality-based Selection

SFB = Selection under a Fixed Budget

LCS = Least-Cost Selection

CQ = Selection Based on Consultants' Qualifications

Other = Selection of individual consultants (per Section V of Consultants Guidelines),

Commercial Practices, etc.

N.B.F. = Not Bank-financed

Figures in parenthesis are the amounts to be financed by the Bank Loan/Grant.

Prior review thresholds (Table B)

Table B. Procurement Methods and Prior Review

Expenditure Category	Contract Value (Threshold)	Procurement Method	CONTRACTS SUBJECT TO PRIOR REVIEW
1. Civil Works	Individual contracts with value of US\$50,000 and above	NCB	Yes, prior review by IBRD
	Individual contracts with value less than US\$50,000	NCB	No, Post Review only
2. Goods	Individual contracts with value of US\$100,000 and above	ICB	Yes, prior review by IBRD
	Individual contracts with value of US\$20,000 up to US\$100,000	NCB	Yes, prior review by PMU Procurement Specialist
	Individual contracts with value less than US\$20,000	Shopping	No, Post Review only
3a. Technical Assistance FIRMS See Note Below.	All TA contracts with Firms with value equal to or more than US\$100,000.	Quality and Cost- based Procedures (QCB)	Yes, prior review by IBRD
	All TA contracts with Firms with value less than US\$100,000	Consultants' Qualifications (CQ)	Yes, prior review by IBRD
Technical Assistance INDIVIDUALS	All TA contracts with Individuals with value equal to or more than US\$100,000.	Consultant's Qualifications (CQ)	Yes, prior review by IBRD
	All TA contracts with Individuals with value from US\$50,000 up to US\$100,000	Consultant's Qualifications (CQ)	Yes, prior review by IBRD
4. Training, Seminars & Workshops	Not Applicable	Government procedures acceptable to IBRD	No, Post Review only
5. Salaries & Benefits	Not Applicable	Government procedures acceptable to IBRD	Not Applicable
6. Other Operational Costs	All contracts with a value equal to US\$ 20,000 and above	NCB	No, Post Review only
	All contracts with a value less than US\$20,000	Shopping	No, Post Review only
	All TA contracts with Individuals with value less than US\$50,000	Consultant's Qualifications (CQ)	No, Post Review only
	Contracts with value equal to US\$100,000 or more	ICB	Yes, prior review by IBRD
	Contracts with value equal to US\$20,000 up to US\$100,000	NCB	Yes, prior review by IBRD
	Contracts with value less than US\$20,000	Shopping Procedures	No, Post Review Only

Note: Terms of Reference, Consultants' Qualifications, Short Lists, and RFPs for all firms must be reviewed by IBRD independent of value.

Disbursement

Allocation of loan/grant proceeds (Table C)

Table C: Allocation of Loan Proceeds

	Amount of Loan Allocated (Expressed in US\$)	% of Eligible Expenditures to be Financed
Civil Works	160,000	50%
Goods	1,450,000	100% of foreign expenditures and 100% of local expenditures (ex-factory cost) 85% of other local expenditures
Services		
- Technical Assistance	8,370,000	100%
- Training	580,000	100%
Incremental Operating Costs	5,297,000	100% of eligible expenditures-Year 1; 90%-Year 2; 75%-Year 3; 50%-Year 4; 20%-Year 5; 10% Year 6; 10%-Year 7 (2007)
Front-end Fee	173,600	Amount Due
Unallocated	1,330,000	
TOTAL	17,360,000	

Table C.1 Financing by Project Component (US\$ Millions)

	IBRD GEF				The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%
Landowner Forest Decision-Making								
Development Options Study	2.14	51.2	1.15	27.6	0.88	21.1	4.17	10.7
Strengthening of Landowner Representative Mechanisms	0.77	70.0	0.07	6.8	0.25	23.2	1.10	2.8
Land-Group Based Conservation & Resource Management Areas	0.70	43.3	0.68	42.3	0.23	14.4	1.61	4.1
Project Management Unit	2.86	74.4	-	-	0.98	25.6	3.84	9.8
Subtotal Landowner Forest Decision-Making	6.46	60.3	1.91	17.8	2.35	21.9	10.72	27.4
Conservation Trust Fund								
Establishment Activities	-	-	0.87	100.0	0.00	-	0.87	2.2
Commencement Activities	-	-	4.12	100.0	0.00	-	4.12	10.5
CTF Endowment	-	-	10.00	100.0	-	-	10.00	25.6
Subtotal Conservation Trust Fund	-	-	14.99	100.0	0.00	-	14.99	38.3
Sustainable Forest Management								
Improved Forest Operations, Inspection and Monitoring	3.13	84.2	-	-	0.59	15.8	3.72	9.5
Forest Planning	1.45	79.5	-	-	0.38	20.5	1.83	4.7
Post-Harvest Forest Management and Plantations	2.67	84.6	-	-	0.49	15.4	3.16	8.1
Subtotal Sustainable Forest Management	7.26	83.4	-	-	1.45	16.6	8.71	22.3
Environmental Assessment & Monitoring								
Environmental Assessment, Monitoring and Regulation	2.89	75.0	-	-	0.96	25.0	3.86	9.9
Environmental Monitoring by Local Communities	0.57	68.6	0.09	10.8	0.17	20.7	0.83	2.1
Subtotal Environmental Assessment & Monitoring	3.46	73.9	0.09	1.9	1.13	24.2	4.68	12.0
Total Financing of Project Costs	17.18	43.9	16.99	43.4	4.93	12.6	39.11	100.0
Front End Fee	0.17							
Total Disbursement	17.36							

Table C.2 Financing by Expenditure Accounts (US\$ Millions)

	IBRD	GEF		The Gove	ernment	Total		
	Amount	%	Amount	%	Amount	%	Amount	%
Investment Costs								
Civil Works	0.18	44.7	0.04	10.5	0.18	44.7	0.40	1.0
Goods								
Vehicles	0.74	87.5	0.03	3.7	0.07	8.8	0.84	2.2
Computers and Associated Equipment	0.50	82.2	0.06	9.6	0.05	8.2	0.61	1.6
Other Equipment	0.37	74.1	0.03	5.3	0.10	20.7	0.50	1.3
Subtotal Goods	1.61	82.4	0.12	5.9	0.23	11.6	1.95	5.0
Services								
Technical Assistance	8.12	80.7	0.98	9.8	0.96	9.5	10.06	25.7
Training, Seminars & Workshops	0.64	62.8	0.38	37.2	0.00	-	1.02	2.6
Subtotal Services	8.76	79.1	1.36	12.36	0.96	8.7	11.08	32.8
Grants and Awards	1.19	8.1	13.39	91.9	0.00	-	14.58	37.3
Total Investment Costs	11.73	41.8	14.91	53.3	1.36	4.9	28.00	76.1
Recurrent Costs								
Staff Salaries and Allowances	2.79	51.4	0.57	10.4	2.08	38.2	5.44	13.9
Recurrent Operational Costs	2.67	46.9	1.52	26.8	1.49	26.2	5.67	10.0
Total Recurrent Costs	5.65	50.8	2.09	18.81	3.57	32.13	11.11	23.9
Total Financing of Project Costs	17.18	43.9	16.99	43.4	4.93	12.6	39.11	100.0
Front End Fee	0.17							
Total Disbursement	17.36							

Note: Totals in Tables C1 & C2 may contain rounding errors.

Annex 7: Project Processing Schedule PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

Project Schedule	Planned	Actual
Time taken to prepare the project (months)	12	36
First Bank mission (identification)	09/15/1997	09/15/1997
Appraisal mission departure	04/15/1998	01/11/1999
Negotiations	04/15/1998	10/09/2001
Planned Date of Effectiveness	11/28/1998	03/31/2002

Prepared by:

National Forest Authority, Office of Environmental and Conservation, Department of Treasury and Corporate Affairs.

Preparation assistance:

Japanese PHRD grant (\$750,000) and GEF PDF Block B grant (\$300,000)

Bank staff who worked on the project included:

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Carlos R. Escudero	Operational Lawyer
Kathleen Mikitin	Audit Senior
Robin Broadfield	Sr. Regional Coordinator
Andrew Bond	Sr. Biodiversity Specialist
Kathryn Cherrie/Evelyn Laguidao	Program Assistants

Annex 8: Documents in the Project File* PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

A. Project Implementation Plan

- A. Project Preparation and Appraisal Documents
- Papua New Guinea Government's Project Implementation Plan"—April, 1999
- · "Some Issues of Law and Policy Relating to Landowner Organisation and Representation Mechanisms", Kathy Whimp—September, 1998
- · "Conservation Area Mechanisms in Papua New Guinea", Kathy Whimp—September, 1998
- "Detailed Description of Activities for Landowner Component", Kathy Whimp—September,
 1998
- · "Landowner Forest Decision Making Component—Component Report", Hartmut Holzknecht—February, 1998
- Papua New Guinea Conservation Trust Fund Deed", The Nature Conservancy—April, 1999
- "Papua New Guinea Conservation Trust Fund Constitution", The Nature Conservancy—April,
 1999
- · "Conservation Trust Fund Framework Document", The Nature Conservancy—August, 1998
- "Sustainable Forest Management Component Report", Paul Ryan—February, 1998/March 1999
- · "Low Impact Harvesting, Timber Certification and Eco-Forestry", Paul Ryan—February, 1998
- "Implementing Best Practice Environmental Regulation in Papua New Guinea", Kathy Whimp—April, 1999
- · "First-year Project Implementation Schedule", Robert Etheredge—November 1999
- · "Six-year Project Implementation Schedule", Robert Etheredge—November 1999

B. Bank Staff Assessments

- · "Social Analysis of Rural Development Issues", Bruce Harris—March, 1999
- · Project Concept Document—January, 1998
- GEF Proposal for Review—October, 1997
- · "Assessment of Agency's Capacity to Implement Project Procurement", Richard Scheiner—April, 1999

C. Other

- Papua New Guinea Government's Environmental Assessment"—April, 1999
- · "Best Practices and Strategic Options for Knowledge Management", Jeff Kwaterski, Pact International—February, 1999
- "Best Practices and Strategic Options for Education", Dr. Larry Orsak—February, 1999.
- · "GEF STAP Review"—October, 1997
- · "Project Cost Tables" (Costab File: PNG-10.TAB)—October 2001

^{*}Including electronic files

Annex 9: Statement of Loans and Credits PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

11-Oct-2001

			Origin	nal Amount in US\$ Millions		Diffe	Difference between expected and actual disbursements ^a		
Project ID	FY	Purpose	IBRD	IDA	– Cancel.	Undisb.	Orig	Frm Rev'd	
P069771	2000	GVERNANCE PROMOTION ADJUSTMENT LOAN	90.00	0.00	0.00	35.00	35.00	0.00	
P066954	2000	PG-GAS DEV TA	7.00	0.00	0.00	6.02	0.42	0.00	
P060330	2000	Mining Sector Inst. Strengthening TA	10.00	0.00	0.00	9.33	1.08	0.00	
P054238	2000	PNG-GAZELLE RESTORATION II	25.26	0.00	0.00	21.65	11.44	0.00	
P055446	1998	EMERGENCY EL NINO	5.00	0.00	3.50	0.24	3.74	0.24	
P004399	1993	PG-POPULATION PROJECT	6.90	0.00	0.00	2.33	2.33	0.00	
P004392	1993	PG-EDUCATION DEVELOPMENt	35.00	0.00	0.03	13.98	14.01	6.19	
P004389	1992	ORO SMLHLDR OIL PALM	27.00	0.00	5.62	3.33	8.95	-0.97	
		— Total:	206.16	0.00	9.16	91.86	76.96	5.46	

PAPUA NEW GUINEA STATEMENT OF IFC's

Held and Disbursed Portfolio

May-2001

In Millions US Dollars

			Committed				Disbursed				
	Company		IFC	_	IFC						
FY Approval		Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic		
	Total Portfolio:	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
		Ap	provals Pe	nding Co	ommitment						
FY Approval	Company	Loai	n Equ	ity	Quasi	Partic					
	Total Pending Commitment:	0.00	0.	00	0.00	0.00					

Annex 10: Country at a Glance

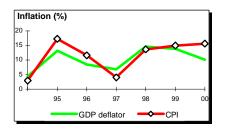
PAPUA NEW GUINEA: FORESTRY AND CONSERVATION PROJECT

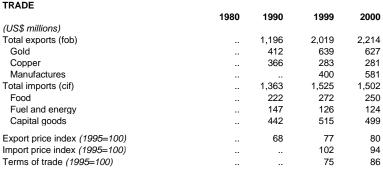
DOVEDTY LOCALLY			Papua	East	Lower-	
POVERTY and SOCIAL			New Guinea	Asia & Pacific	middle- income	Development diamond*
2000						
Population, mid-year (millions)			5.1	1,853	2,046	Life expectancy
GNI per capita (Atlas method, US\$)			690 3.5	1,060 1,964	1,140 2,327	<u>_</u>
GNI (Atlas method, US\$ billions)			3.5	1,904	2,321	T
Average annual growth, 1994-00						
Population (%) Labor force (%)			2.7 2.3	1.1 1.4	1.0 1.3	GNI Gross
Most recent estimate (latest year a	vailable 19	94-00)	2.5	17	1.0	per primary
Poverty (% of population below nation			38			capita enrollment
Urban population (% of total populati		1116)	17	 35	42	
Life expectancy at birth (years)			58	69	69	<u> </u>
Infant mortality (per 1,000 live births))		58	35	32	
Child malnutrition (% of children und	er 5)		30	13	11	Access to improved water source
Access to an improved water source	(% of popula	ation)	42	75	80	
Illiteracy (% of population age 15+)			35	14	15	Panua Naw Cuinas
Gross primary enrollment (% of scho	ool-age popu	ılation)	80	119	114	Papua New Guinea
Male			87	121	116	—— Lower-middle-income group
Female			74	121	114	'
KEY ECONOMIC RATIOS and LON	IG-TERM TE	RENDS				
		1980	1990	1999	2000	Economic ratios*
GDP (US\$ billions)		2.5	3.2	3.7	3.8	Economic ratios
Gross domestic investment/GDP		25.2	24.4	17.4	15.4	Toods
Exports of goods and services/GDP		43.2	40.6	44.5	47.7	Trade
Gross domestic savings/GDP		15.1	16.1	14.5	17.4	_
Gross national savings/GDP		19.0	9.0	15.8	15.8	<u> </u>
Current account balance/GDP		-12.2	-9.8	-5.0	1.1	
Interest payments/GDP		2.0	4.8	1.5	2.3	Domestic Investment
Total debt/GDP		28.2	80.5	73.2	69.7	savings
Total debt service/exports		13.8	35.5	9.9	17.3	
Present value of debt/GDP						<u> </u>
Present value of debt/exports						
	1980-90	1990-00	1999	2000	2000-04	Indebtedness
(average annual growth)						Danua Naw Cuinas
GDP	1.9	4.1	5.4	-1.8	1.4	Papua New Guinea
GDP per capita Exports of goods and services	-0.4 3.3	1.4 2.8	2.6 -4.4	-4.4 -7.6	-1.3 -4.3	Lower-middle-income group
exports of goods and services	3.3	2.0	-4.4	-7.0	-4.3	
CTRUCTURE of the ECONOMY						
STRUCTURE of the ECONOMY		1980	1990	1999	2000	Growth of investment and GDP (%)
(% of GDP)						40 T
Agriculture						
		33.1	29.0	29.4	25.9	
		26.8	30.4	38.4	43.6	20 -
Manufacturing		26.8 9.5	30.4 9.0	38.4 8.4	43.6 7.8	20
Manufacturing		26.8	30.4	38.4	43.6	
Manufacturing Services		26.8 9.5 40.0 60.9	30.4 9.0 40.6 59.0	38.4 8.4 32.2 64.5	43.6 7.8 30.5 63.2	20
Manufacturing Services Private consumption		26.8 9.5 40.0 60.9 24.1	30.4 9.0 40.6	38.4 8.4 32.2 64.5 21.0	43.6 7.8 30.5 63.2 19.4	20 95 96 98 99 00
Manufacturing Services Private consumption General government consumption		26.8 9.5 40.0 60.9	30.4 9.0 40.6 59.0	38.4 8.4 32.2 64.5	43.6 7.8 30.5 63.2	20 0 95 96 97 98 99 00
Manufacturing Services Private consumption General government consumption		26.8 9.5 40.0 60.9 24.1 53.3	30.4 9.0 40.6 59.0 24.8 48.9	38.4 8.4 32.2 64.5 21.0 47.3	43.6 7.8 30.5 63.2 19.4 45.7	20 0 95 96 9 98 99 00 -20 GDI
Manufacturing Services Private consumption General government consumption Imports of goods and services		26.8 9.5 40.0 60.9 24.1	30.4 9.0 40.6 59.0 24.8	38.4 8.4 32.2 64.5 21.0	43.6 7.8 30.5 63.2 19.4	Growth of exports and imports (%)
Manufacturing Services Private consumption General government consumption Imports of goods and services (average annual growth)		26.8 9.5 40.0 60.9 24.1 53.3	30.4 9.0 40.6 59.0 24.8 48.9	38.4 8.4 32.2 64.5 21.0 47.3	43.6 7.8 30.5 63.2 19.4 45.7	20 0 95 96 9 38 99 00 -20 GDI • GDP
Manufacturing Services Private consumption General government consumption Imports of goods and services (average annual growth) Agriculture		26.8 9.5 40.0 60.9 24.1 53.3	30.4 9.0 40.6 59.0 24.8 48.9	38.4 8.4 32.2 64.5 21.0 47.3	43.6 7.8 30.5 63.2 19.4 45.7	Growth of exports and imports (%)
Manufacturing Services Private consumption General government consumption Imports of goods and services (average annual growth) Agriculture		26.8 9.5 40.0 60.9 24.1 53.3 1980-90	30.4 9.0 40.6 59.0 24.8 48.9 1990-00	38.4 8.4 32.2 64.5 21.0 47.3 1999	43.6 7.8 30.5 63.2 19.4 45.7 2000	Growth of exports and imports (%)
Manufacturing Services Private consumption General government consumption Imports of goods and services (average annual growth) Agriculture Industry Manufacturing		26.8 9.5 40.0 60.9 24.1 53.3 1980-90 1.8 1.9	30.4 9.0 40.6 59.0 24.8 48.9 1990-00	38.4 8.4 32.2 64.5 21.0 47.3 1999 5.1 2.5	43.6 7.8 30.5 63.2 19.4 45.7 2000 3.5 -0.9	Growth of exports and imports (%)
Manufacturing Services Private consumption General government consumption Imports of goods and services (average annual growth) Agriculture Industry Manufacturing Services		26.8 9.5 40.0 60.9 24.1 53.3 1980-90 1.8 1.9 0.1 2.0	30.4 9.0 40.6 59.0 24.8 48.9 1990-00 3.9 5.6 5.3 3.1	38.4 8.4 32.2 64.5 21.0 47.3 1999 5.1 2.5 -1.9 8.7	43.6 7.8 30.5 63.2 19.4 45.7 2000 3.5 -0.9 -7.0 -7.1	Growth of exports and imports (%)
Manufacturing Services Private consumption General government consumption Imports of goods and services (average annual growth) Agriculture Industry Manufacturing Services Private consumption		26.8 9.5 40.0 60.9 24.1 53.3 1980-90 1.8 1.9 0.1 2.0	30.4 9.0 40.6 59.0 24.8 48.9 1990-00 3.9 5.6 5.3 3.1 6.2	38.4 8.4 32.2 64.5 21.0 47.3 1999 5.1 2.5 -1.9 8.7	43.6 7.8 30.5 63.2 19.4 45.7 2000 3.5 -0.9 -7.0 -7.1	20 0 95 96 97 98 99 90 90 90 90 90 90 90 90 90
Services Private consumption General government consumption Imports of goods and services (average annual growth) Agriculture Industry		26.8 9.5 40.0 60.9 24.1 53.3 1980-90 1.8 1.9 0.1 2.0	30.4 9.0 40.6 59.0 24.8 48.9 1990-00 3.9 5.6 5.3 3.1	38.4 8.4 32.2 64.5 21.0 47.3 1999 5.1 2.5 -1.9 8.7	43.6 7.8 30.5 63.2 19.4 45.7 2000 3.5 -0.9 -7.0 -7.1	20 95 96 97 98 99 00 Growth of exports and imports (%) 20 10 95 96 97 98 99 99

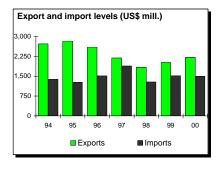
Note: 2000 data are preliminary estimates.

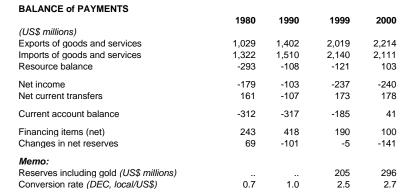
^{*} The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

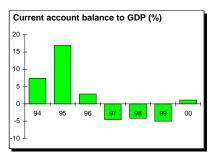
PRICES and GOVERNMENT FINANCE				
	1980	1990	1999	2000
Domestic prices				
(% change)				
Consumer prices		7.0	14.9	15.6
Implicit GDP deflator	7.1	4.1	13.8	10.1
Government finance				
(% of GDP, excludes grants)				
Current revenue		32.1	22.6	24.3
Current budget balance		1.7	0.9	2.4
Overall surplus/deficit		-3.3	-3.5	-1.5
TRADE				





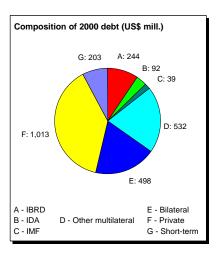






EXTERNAL DEBT and RESOURCE FLOWS

EXTERNAL DEBT and RESOURCE FLOWS				
	1980	1990	1999	2000
(US\$ millions)				
Total debt outstanding and disbursed	719	2,594	2,695	2,621
IBRD	55	235	241	244
IDA	55	115	97	92
.5	00		٠.	0_
Total debt service	150	553	211	407
IBRD	6	28	46	44
IDA	0	2	3	3
Composition of net resource flows				
Official grants	279	304	95	
Official creditors	34	186	-26	32
Private creditors	30	49	-30	-109
Foreign direct investment	76	155	297	
Portfolio equity	0	0	232	
. o.nono oquity	ŭ	ŭ	_0_	
World Bank program				
Commitments	30	67	0	107
Disbursements	15	64	8	43
Principal repayments	2	15	34	31
Net flows	12	49	-26	12
Interest payments	5	15	16	16
Net transfers	8	33	-42	-4
Net transiers	0	33	-42	-4



9/13/01 **Development Economics**

Social Analysis of Rural Development Issues

The social analysis is in two parts. The first discusses overall social and economic issues impacting on rural development in Papua New Guinea, a Participatory Framework for implementation of the Forestry and Conservation Project and the sub-projects to be funded in rural areas of the country, and a methodology for conducting social assessments in selected areas where sub-projects will be implemented. The second part of the report is a social assessment of Kokoro Village. This provides example of how the general socioeconomic issues play out in a particular rural area and of how social assessment might be approached in a rural area of PNG in which a sub-project might be implemented.

Part One: General Social Issues in Rural Development and a Participatory Framework

Though rich in natural resources, the economic development of PNG has not led to an improved quality of life for its citizens, particularly its rural citizens. The country has failed to mobilize its basic assets for development. These assets include fiscal, natural resources, human capital, social capital and land and labor. The most critical social and economic issues facing the country are reflections of these failures.

Major Social and Economic Issues Affecting Rural Development:

Governance: The state has consistently failed to mobilize fiscal resources and the returns from natural resources to benefit the population. The political system reflects the social fragmentation of the country. The first past the post electoral system encourages politicians to respond to the narrow interests of the small segment of the electorate which voted for them. Political influence, rather than development needs, pervades the distribution of fiscal resources and rights to natural resource exploitation. Political influence undermines the bureaucracy and government agencies. National planning is almost non-existent; where it exists, implementation capacity is low. The rapid growth of funds controlled by politicians in discretionary ("slush") funds exacerbates the tendency towards patronage politics with a lack of transparency and accountability.

Decentralization and Service Delivery: The decentralization reforms of the Organic Law of 1995 devolved most responsibility for public services to the provincial and local level governments. However, the fiscal and manpower resources to carry out those functions have not been forthcoming, so the human capital of the country remains poorly developed. Service delivery has continued its almost two-decade long decline. Health indicators, already poor, are deteriorating. Educational facilities and supplies in poor condition and short supply. Infrastructure (notably transportation, but also communications, water supply and physical plant) is either non-existent or in an advanced state of disrepair. Poverty is at unacceptably high levels, and most factors diagnostic of greatest risk for poverty are associated with rural residence. Rural income generating opportunities are woefully underdeveloped.

Social and Cultural Fragmentation: Social capital is poorly mobilized in PNG. Social and cultural fragmentation at the local level prevents cooperative action among villages, limits the expression of unified demands from the local level to the formal government and contributes to the ability of national and provincial politicians to pursue patronage politics rather than an integrated strategy for development. The key assets of rural people are land, still held in customary tenure, and labor, but neither is effectively mobilized because the fragmentary nature of demands and responses means that social capital, human

capital, infrastructure and other assets which could enable full exploitation of land and labor are all poorly developed. Expansion of local level social capital is key to making more efficient use of other assets at both local and national levels.

<u>Gender Issues</u>: Women represent half the potential human capital of the country, but suffer from social and cultural blockages to full participation. Women provide most of the labor, in household and subsistence activities, are in inferior positions of authority to men and are subjects of endemic domestic and, increasingly, social violence. Women tend to be the producers while men are the transactors. Though responsible for producing a majority of the wealth at the local level, women control little of their production.

A Participatory Framework for Project Implementation

The project will support a variety of local level sub-projects in rural areas of PNG. These sub-projects should be designed and implemented in ways which increase the stock of social capital at the local level and improve the links between local and formal governmental institutions, thereby improving planning and implementation and the efficiency of distribution of fiscal resources. A participatory framework to support this will include the following steps in project identification and implementation:

<u>Social Mapping and Baseline Data Activities</u> to provide information on key institutions, decisionmaking individuals and bodies and how they may play a role in the development of consensus on development strategies.

Option Information and Awareness Building to inform people of development options and lead to consensus at the clan level on development strategies.

<u>Multi-level Consensus Building</u> to develop consensus among several culture groups in a particular area concerning development strategies.

<u>Integration of Development Strategies and Local Government Planning</u> to bring area development strategies firmly into local government planning strategies and improve links between local and government institutions.

<u>Local Institution Capacity Building</u> to give legal status to local CBOs and provide them with institutional development, management training and small scale enterprise training.

Sub-Project implementation to prepare, submit and implement locally designed and driven projects.

Social Analysis: Social assessment will be conducted in selected areas where sub-projects are to be implemented. This will consist of a baseline assessment, identification of key stakeholders and their potential impact on the project, analysis of key formal and informal institutions and the development of participatory monitoring and evaluation procedures to provide ongoing information on project progress and, if necessary, adapt project implementation or operation to meet changing circumstances.

Part Two: Kokoro Village Social Assessment

Introduction and Background

The social assessment of Kokoro Village provides an illustrative view of the situation and dynamics in a

rural area of Papua New Guinea suitable as a locale for a sub-project under the proposed Forestry and Conservation Project. This is a rapid assessment, based on one week in the Managalas Plateau and about three days in the village of Kokoro.

Kokoro Village is located in a highland plateau in Oro Province, an area with considerable tropical forestry resources and biodiversity. Access is by air or foot. The nearest airstrip is at Itokama, five miles distant. The Itokama-Afore Road has fallen into disrepair and no longer provides a link to the rest of the province, though it still serves as a foot track for travel among the villages of the plateau.

Physical and Social Structure of the Village

There are forty-three households with a total population of 238 (130 male and 108 female). Houses are of bush materials, raised on stilts. There is no electricity or running water. Women carry water from the river, located about half a mile from the main village.

Village social structure is based on a patrilineal clan system. Each clan consists of several lineages and each lineage of several households. Inheritance is patrilineal, clans are exogamous with regard to marriage and marriage links are established with a number of other villages on the plateau.

Subsistence and Livelihood Activities

The garden is the center of Kokoro life. There are two gardens, a main one, located several miles from the village on traditional land, and a smaller one planted near the village for daily needs. Gardening is time and labor intensive. Women provide most of the physical labor, including planting, tending and maintaining, harvesting, and carrying produce from the garden to the village. Men do much less work, and often go into the bush to hunt while the women are tending the gardens.

The garden is culturally and socially significant. The ground on which the garden exists is *Papa Graun* (Father's Ground) because it was bequeathed to the present generation by the ancestors whose presence ensures that the ground will be fertile for their descendants. Patterns of land constitute a physical genealogy of the clans and the tribe, with locations and use patterns reflecting social relationships among villagers. The garden provides a variety of foods, including yam, the basic food and central element in the extensive ceremonial exchange system which binds Kokoro to other clans, villages and groups throughout the plateau.

The main crops grown for income are chilies, coffee and okari nut. However, the deterioration of the transport system, notably the road, in recent years means these activities are much less economic than they were in the seventies and early eighties.

Cash income levels are low, averaging probably about 100 kina (about \$50 US) per year. Cash needs are also low, though significant enough to place a strain on most households.

Public Services

The level of service delivery to the village is low. The nearest clinic is at Itokama Village, a two hour walk, and rarely has significant supplies. The nearest primary school is also at Itokama. Supplies and accommodations are substandard. The expense, combined with the distance and demands for children's labor in the gardens and village, result in only about half of school age village children attending school at any time.

Other services simply do not exist. Agricultural extension has not existed since the 1980s. The nearest police station is a two day walk; there are no judicial services on the plateau.

Stakeholders and Institutional Context

The main stakeholders concerned with development in Kokoro Village are the formal government institutions, representatives of civil society, community based organizations, and the traditional clan and lineage based institutions of the village (including households).

Formal government institutions are the national and provincial governments and the local government council (LGC). Government's impact is minor and has dropped in recent years. Today neither the national nor the provincial levels have major impact at the village level. Services, primarily a provincial responsibility, have declined, though minimal health and education services continue to be provided.

The LGC, based at Afore, has more impact since the councilors are in frequent contact with the people. Still, villagers complain that the LGC has many plans, but no resources to carry them out. This is largely because the decentralization process, which includes large fiscal transfers to the provincial and local levels, has not yet been implemented.

Civil society plays a larger role in the village. Outside NGOs have been active in the area, helping villages come to consensus on development strategies for the ten culture zones of the plateau. NGOs were active in the struggle against declaration of a Forestry Management Area, successfully forestalling large-scale logging operations in the area.

The work of NGOs has led to the development of community based organizations on the plateau. Kokoro Village belongs to the Barai Non Formal Education Association (BNEA). BNEA has taken the lead in information dissemination and awareness building, providing assistance in cash cropping initiatives and helping in the buying and selling of crops in cooperation with several CBOs from other culture zones.

The CBOs work with, and are based on, the clan structure of the villages. The traditional clan system is still the basis of social and political life in the village. The absence of outside security/legal agents means clans still are primary in dispute settlement and conflict resolution. Traditional methods of discussion, settlement and compensation are almost ubiquitous. Clans play the primary role in significant events (birth, marriage, death) and are the major vehicles for inter-village and inter-zone relations.

Major Social and Socioeconomic Issues:

Kokoro Villagers identified the following as priorities for development in their area:

- · Maintenance of the Itokama-Afore road link.
- · Acquisition of transportation, preferably a four wheel drive vehicle.
- · Establishment of a hospital on the plateau.
- Establishment of a wholesale outlet on the plateau.
- · Project assistance for the women of the plateau.
- · Doctors or other professional medical practitioners stationed in the area.
- Wokabaut somil (portable sawmill) and training in its maintenance.
- · Training in how to organize and sell coffee.
- · Cooperative marketing of produce and training in how to do so.

- · FM radio for the plateau.
- · Airstrip maintenance for the Itokama Airstrip.
- · Improvements in the education system, including literacy programs.
- · Coffee mills located at strategic points on the plateau.
- · Micro-hydro project to provide electrical power.
- · Identification of customary land boundaries.

Papua New Guinea Conservation Trust Fund (CTF)

Supplemental Design Information

1. Introduction. The concept of a CTF in PNG has been discussed since the early 1990s. In 1996, The Nature Conservancy and the UNDP-sponsored Biodiversity Strengthening Program of the PNG Office of Environment and Conservation began collaborating to develop a national consensus around the creation of a Trust Fund and its mission and operating plan. This has included very broad consultations (over 500 meetings and interviews with groups and individuals in PNG) as well as the preparation of a number of key technical studies looking at legal, institutional and socio-political issues surrounding the creation of such a fund.

The overall scope of the CTF will cover forests and other areas such as marine sites. This annex outlines the major design elements of the broader CTF -- including activities that will be funded by the GEF as well as those funded by other sources. The design elements in this annex reflect the broad consultations described above and agreement by the CTF Steering Committee, composed of 14 leaders from key governmental and non-governmental stakeholder groups. The Steering Committee assumed responsibility for directing the Trust Fund project prior to the establishment of the Board of Directors in March 1999.

The CTF Steering Committee and Board of Directors will actively draw on the experiences of existing CTFs, including reviewing in-depth the 1998 study by the GEF *Evaluation of Experience with Conservation Trust Funds*, and adapting various design elements of the PNG CTF as appropriate.

- **2. Goal and Objectives.** The goal of the Conservation Trust Fund is to provide an ongoing and reliable source of in-country funding for biodiversity conservation and sustainable development in Papua New Guinea. Specific objectives include:
- to conserve -- and where necessary restore -- natural resource areas, particularly those that are national priorities and of global significance in terms of biodiversity value;
- to strengthen the capability of resource owners to conserve and sustainably manage their own natural resources through education, training and other capacity-building activities built into projects; and
- to enhance the knowledge and information base needed to monitor and achieve sustainable resource management and biodiversity conservation.
- **3. Linkages to Other Biodiversity/Environmental Strategies.** The CTF will establish particularly strong linkages with the Office of Environment and Conservation (as described below). In addition, the CTF will be appropriately integrated into relevant biodiversity/environmental strategies and programs, such as: the National Forest and Conservation Action Plan (NFCAP), the Targeted Community Development Program (TCDP), the Total Catchment Environmental Management (TCEM) Strategy, and programs sponsored by bilateral and multilateral agencies.
- **4. Legal Instrument.** The Trust Fund was established in April 1999 as a tax-exempt, charitable body under PNG law known as a "Trustee Company". As required under PNG law, the Trustee Company is governed by a Trust Deed (outlining the mission and essential design elements of the Fund) and Constitution (defining management structure and various rules under which the Fund shall operate).
- 5. Role of Office of Environment and Conservation (OEC). OEC serves as the lead governmental

agency within PNG on all conservation-related matters, including setting conservation priorities, formulating conservation policies and implementing conservation programs. Thus, a strong cooperative relationship will be developed between the OEC and the CTF: (i) the OEC Director will hold an ex-officio seat on the Board; (ii) in carrying out its mission, the CTF will recognize and work in support of the role of OEC as the lead agency in conservation priority-setting; and (iii) OEC-sponsored projects meeting relevant criteria will be eligible for funding by the CTF.

6. Governance and Structure. Some additional design information on governance and structure issues is provided below:

(i) Board of Directors

Board members are drawn from a wide range of stakeholder groups, with members serving in their *individual* capacity with the sole objective of achieving the mission of the Trust Fund. The Board will be composed initially of two ex-officio members from Government Departments (who serve in a representative rather than an individual capacity), and approximately 8 private sector members serving staggered three-year terms with three-year term limit. Board size may be expanded later, based on expertise and technical needs. Two sets of provisional criteria have been developed for Board membership:

Criteria set #1: For all Directors:

- · Demonstrated commitment to the principles and mission of the Trust Fund;
- · Resident of PNG; and
- · Proven track record of distinguished accomplishment, integrity and experience in PNG.

<u>Criteria set #2</u>: Directors serving on the Board shall represent the following areas:

- Director of OEC or successor agency
- · Secretary of Finance and Planning or successor agency
- · Conservation planning, science or management (2 members)
- · Community development
- · Financial management
- · Private sector experience
- · Management including project development and operations experience

The initial Board of Directors was selected by the Settlor (The Nature Conservancy) in February 1999, in accordance with the CTF's Constitution and in consultation with the Steering Committee and an impartial Selection Advisory Panel, following an open period of nominations, including public announcements and a Stakeholders Assembly soliciting nominations. Thereafter, a transparent and participatory process will be used by the Board to elect its own successors. Fixed terms and term limits will help to stimulate the involvement of new members. The Board will take active measures to ensure that interested stakeholders have meaningful input into (i) assessment of Board performance; (ii) Board composition issues; and (iii) the nominations process. One key mechanism for this will be an annual *Stakeholders General Assembly*.

The focus of the Board will be on over-arching policies and priorities of the CTF, financial management, and fostering public-private partnerships necessary to build consensus and raise funds. The CTF's by-laws and other rules related to Board procedures will include strong provisions to reduce potential conflicts of interest. The Board will assure that priorities, procedures, and operating plans are reasonable and transparent, and that the Management Unit carries them out efficiently.

(ii) Management Unit

Day-to-day management and administration of the Trust Fund's activities would be carried out by a Management Unit headed by an Executive Director appointed by and responsible to the Board. The Unit would be responsible for activities such as: preparation of annual work plans and budgets; development and implementation of systems for soliciting, receiving, reviewing, and recommending proposals; and regular reporting to the Board on program and project implementation. The Management Unit will be kept relatively lean, and the percentage of Fund assets available for administrative costs will be capped (e.g., 20% of resources annually available). Instead of building a large permanent staff for the Fund, there will be a preference for reliance on short-term and consultant expertise, and developing expertise within other PNG organizations that can be contracted to provide services. Rather than becoming an executing agency itself, the Management Unit will, as much as possible, work through and with other organizations in PNG.

(iii) Trust Advisor (commencement phase)

An organization experienced in Trust Funds will be contracted to serve as Trust Advisor during the critical start-up phase. This will entail providing assistance in the following areas:

- · legal issues, taxation, financial management, personnel, information management, tracking systems, and other technical matters encountered during the start-up phase;
- · liaison with major donors and providing help in securing additional financial contributions;
- · supporting the establishment and capacity building of the Management Unit;
- · assisting with identification and resolution of problems; and
- providing other appropriate support to the Board of Directors and staff in carrying out their responsibilities.

(iv) Technical Advisory Committees

Technical committees will be established to assist in review and selection of project proposals as well as project oversight (plus any functions where the Board and/or Management Unit require added technical expertise).

- **7. Linkages.** The CTF will establish strong, collaborative and synergistic linkages with the Office of Environment and Conservation (as described above) and other relevant bodies and programs, such as: the Steering Committees of the National Forest and Conservation Action Plan (NFCAP), the Targeted Community Development Program, the Total Catchment Environmental Management (TCEM) Program, the UNDP-sponsored Ramu Catchment Biosphere Reserve Initiative, the GEF Small Grants Program, and other programs sponsored by PNG government agencies and international agencies.
- **8.** Constitution and Trust Deed. The Constitution and Trust Deed will serve as the principal legal instruments of the CTF. Together, they will include among their provisions:
- · definition of the Fund's mission, goal, and over-arching objectives;
- definition of the general categories of activities to be supported, and eligible beneficiaries, with provisions for modification of same by the Board;
- terms governing invasion (i.e., drawdown) of endowment principal;
- definition of the Trust Fund's other operative bodies, and the responsibilities and authority of each.
- · elaboration of Board procedures;
- · requirements for annual audits of operational, grant-making, and asset management programs;

- · general procedures governing grant-making programs;
- a cap on the annual operating budget, and procedures for modifying the cap;
- · procedures for modification of the bylaws;
- provisions for overriding specific by-laws (This will likely be only through unanimous decision of the Management Board, in order to ensure the maintenance of the endowment and integrity of the Fund's original purpose); and
- provisions for the dissolution of the Trust under extraordinary circumstances, and disposition of assets in case of dissolution. (The disposition of the assets will be left to the discretion of each donor).

9. Management of Trust Capital

The following steps will be taken to ensure responsible management of the trust capital:

- Assets will be managed offshore by professional asset managers of international standing, under discretionary contract, to invest funds in major international financial markets;
- · Funds will be transferred from offshore accounts to central fund accounts in PNG on the basis of defined spending rules and annual expense and grant disbursement needs,
- · Conservative investment guidelines aimed at preservation of capital and generation of adequate income will be approved by the Board and serve as the basis for managing assets;
- Appropriate financial management and auditing controls will guide the management of sinking funds and endowment income;
- As a private charitable body under PNG law, and with a multi-stakeholder governance structure, the Trust Fund will have sufficient checks and balances built into its legal instruments to prevent any one stakeholder group from prevailing in decision-making;
- The Trust's legal instruments allow for dissolution and other corrective measures in the event of actions taken in violation of the Trust's mission or objectives.

Environmental Review

Introduction

The Environmental Review was prepared prior to the appraisal mission, and was finalized during the mission and identifies the potential environmental risks and benefits associated with the proposed Forestry and Conservation Project. Herewith is an edited summary of the review.

Without project situation - Environmental Issues in PNG's Forest Sector

As in many countries, the nature, pace, and scope of forest management in PNG is a controversial topic. At the heart of the controversy in the PNG context are several key concerns. These include: (a) lack of transparency in the process of land allocation and award of forest concessions; (b) lack of clarity in the rules, regulations, obligations and rights of forest companies vis-à-vis local landowners; (c) allocation of forest harvesting rights in areas considered to be of high biodiversity or other ecological service values; (d) lack of meaningful public consultation procedures; and (e) no apparent adherence to basic environmental planning.

The environmental implications of these concerns potentially include:

- allocation of forest areas to log harvesting or other forms of land clearing without due consideration
 of alternative values and services of these lands such as for biodiversity conservation, watershed
 protection, erosion control, or other possible land uses;
- · rapid allocation of forest lands to commercial production without due consideration of the actual ecological values provided by the forest;
- · land use decisions which do not incorporate the views and desires of local communities;
- · introduction of silvicultural practices which may be inappropriate (unsustainable) for the specific ecological context resulting in long-term degradation of the forest;
- forest harvesting relies on large scale commercial operations with out due consideration given to alternative small and medium operations which are less destructive;
- · landowner initiated conservation areas and non-commercial forest management activities are frequently faced with significant obstacles;
- · rapid expansion of logging operations without ability to enforce regulations on acceptable harvesting techniques or to monitor compliance with the harvesting code of practices and environmental legislation leading to unnecessary and avoidable environmental damage and destruction of habitats.

While at the level of broad national policy, PNG is committed to sustainable management of its forest resources (and in fact, this is a requirement under the PNG constitution), it is evident that in the past two decades sustainability has been compromised. In 1989 the *Commission of Inquiry into the Papua New Guinean Forestry Sector* concluded that logging practices were causing irreversible damage to forest resources, and impairing ecosystem functions. In 1991 the GOPNG initiated the National Forest and Conservation Action Program, in conjunction with the Bank and other donors, to reverse these trends. The Forest Act (1991 and amended in 1993) facilitates establishment of a sustainable forest industry.

Project Objectives and Components

The Forestry and Conservation Project intends to assist the Government of PNG with the implementation of its national forest strategy. The Forest and Conservation Project's central objectives will be to improve the environmental sustainability of forest harvests and to implement an effective strategy to promote conservation areas and small-scale sustainable-use enterprises. Implementation of independent inspection activities will be structured so as to allow monitoring of improvements in forest harvest techniques. Conservation goals will be measured by trends in project numbers and area of lands that are under a conservation management regime.

The project will address these objectives through four related components, which are described in detail in the Project Appraisal Document and Project Implementation Plan. Briefly, the components are:

- Landowner Forest Decision-Making
- · Conservation Trust Fund
- · Sustainable Forest Management
- · Environmental Assessment and Monitoring

Expected Environmental Impacts

The PNG forest project is currently classified as a "B" category project under the terms of World Bank Operational Directive 4.01. The project is not expected to have major negative environmental impacts. In fact, the project's components will address many of the problems that confront the environmentally sustainable management of PNG's forest resource.

Significant aggregate improvements in forest management, biodiversity conservation and protected area establishment are expected. Areas that are to be managed for sustained yield natural forestry are to be maintained in a condition that will lead to widespread forest regeneration, and not to follow-on deforestation after timber harvests. Culturally appropriate conservation, protected area and community based sustained use policies and strategies are to be implemented. The project intends to ensure that conservation is integrated as a component of sustainable forest management.

Based on the information available to date, the review of the PNG Forestry and Conservation Project indicates that project actions will have beneficial environmental impacts primarily through its components directed at improving forest management, supporting forest protection programs, introducing more sustainable and productive forest management techniques, introducing more transparent participatory management arrangements and supporting several biodiversity conservation initiatives.

If successful, the project will move the forest administration a long way towards four important goals. First, it will establish a more transparent decision making process and thus lead to increased forest sector governance. Second, it will help to ensure adherence to principles of environmental planning. Third, it will improve opportunities for public input to the decision process. Fourth, it will strengthen the conservation capacity of PNG. The global environmental objective is to foster improved management and conservation of biodiversity and important forest ecosystems in one of the world's most important remaining tropical rainforest regions. Doing so maintains option and existence values associated with intact biodiversity stores and functional tropical ecosystems.

Expected monitorable outcomes of project activities would be: (i) establishment of permanent conservation areas in the

PNG context, and on customarily owned land, that are representative of PNG's biodiversity; (ii) maintenance of wide-spread and

regenerating forest cover in managed forests, especially in areas near sensitive conservation sites; (iii) provision for conservation

reserves within logging sites to be incorporated into Forest Management Agreements; (iv) establishment of legal mechanisms and

financial instruments able to support landowner based conservation and sustainable-use activities; (v) increased landowner participation

in, and benefits from, design and operation of sustainable-forestry enterprises.

Environmental considerations are mainstreamed into virtually every component of this project and are integrated in planning, design, implementation, and monitoring activities both at the local and regional scales. Project components are integrated into a comprehensive strategy to address forest sector issues. Project components are oriented towards addressing most of the main environmental issues associated with forest management. The review indicates that there are no major negative impacts arising from project actions. Furthermore, the project is consistent with World Bank Operational Policies and Directives for forestry activities and environmental assessment OD 4.01 (Environmental Assessment), 4.36 and 4.04 (Natural Habitats).

The preceding statements do not imply that the project is risk free. These conclusions are based on assumptions regarding the effectiveness of project components at addressing major issues. If the project is ineffective at addressing the constraints of the sector, the project risks further polarizing the debate over the Bank's role in the sector and the overall commitment of government to reform in the sector.

Mitigation Measures

Table 1 provides a detailed description of project activities, the associated field activities, potential environmental impacts, mitigation measure proposed and key assumptions which apply to each project component. While the findings indicate that specific project activities will not have direct negative impacts on the ground there are, nonetheless, environmental risks associated with the project. These risks stem from the possibility that:

• the Bank's involvement in the sector is perceived by stakeholders as further entrenching the status quo which is seen by

NGOs to be a giveaway to large commercial interests;

- the project fails to meet its objectives and a significant opportunity to promote the sustainable development of the sector is lost;
- · technical management options supported under the project do not meet their stated goals;
- \cdot the project furthers the goals and aspirations of a single constituency (i.e., timber industry interests) over the legitimate

interests of other groups;

• the project leads to delays in implementation which undermines the credibility of the government and the Bank;

Alternatives to Project Design

The alternatives considered for this project included: the no-project scenario; a project narrowly focused on institutional capacity building in the NFA; a project with strong emphasis on commercial plantations; and a much broader project focusing on a wider range of natural resource management issues not limited to forestry. With the possible exception of the last option, none of these alternatives would

have offered the potential for sustainable forest management, environmental planning and biodiversity conservation as the current design. The no-project and narrowly focused alternatives would simply be non-responsive to the urgent needs of the sector. Similarly, a project focused on plantation activity would serve the interests of a limited constituency and in any case it is not clear that sufficient private interest in this type of investment is available at this time.

Stakeholder Consultation During Preparation

The focus during project preparation has been working in close consultation with all PNG forest sector stakeholders; including government, local and international NGOs, landowners and others. Throughout the development of the project concept, pre-appraisal and appraisal; dozens of meetings have been held with development partners. The project was not developed as a plan to be accepted or rejected by stakeholders; rather, from the beginning the project has evolved as ideas have been contributed by multiple parties. On some half a dozen occasions, draft project documentation has been widely disseminated and comments received, leading to substantial adaptive development of the project.

Summary

The environmental review of the PNG Forest Conservation Project indicates that project actions have potential beneficial environmental impacts by improving forest productivity, supporting forest protection programs, introducing more sustainable and productive forest management techniques, reducing pressure on forest resources through participatory management arrangements and supporting several biodiversity conservation initiatives. Environmental considerations are mainstreamed in almost every component of this project, and are integrated in planning, design, implementation, and monitoring activities both at the local and regional scales. Project Components are oriented towards addressing most of the main environmental issues associated with forest management. The review indicates that there are no major negative impacts arising from project actions. The project is in compliance with World Bank Operational Policies and Directives for forestry activities and environmental assessment (OD/OP 4.01; 4.36 and 4.04).

Project component: Sustainable Natural Forest Management

Project Activity	Potential Field Action	Nature and scope of potential	Mitigation proposed
Independent inspection and reporting	· third party site inspections of forest operations;	 environmental impacts no negative impacts anticipated; potentially positive benefits associated with improved compliance, more consistent application of forest rules and regulations; 	· monitor work and effectiveness of inspection teams;
Forest planning	operations; · forest map production · land suitability assessment · preparation of management plans · improve information systems	 no direct negative impacts of planning are anticipated; specific actions contained within a management plan may have environmentally contentious elements (road building, land clearing, logging,) potentially positive impacts resulting from improved knowledge base, monitoring capacity, 	of sub-component establish effective mechanism for monitoring compliance with code of practices ensure that management planning procedures permit adequate public consultation EIA procedures to be determined for each management plan;
Natural forest regeneration	 Silvicultural practices selective removal of weeds, pruning, thinning, re-planting 	 long term sustainability of regeneration activities; limited soil erosion potential; risk of inappropriate silvicultural treatments; non-point source pollution associated with agro-chemicals used for weeding and other land clearing practices; 	 adherence to logging code of practice; limited use of agro-chemicals in weeding operations limit use of mechanizal land clearing
Timber industry incentives and sanctions	 adoption of improved field practices by private sector; introduce performance bonds linked to compliance with logging code of practice; ranking of corporations performance; 	 no negative impacts anticipated; anticipated positive impacts associated with improved field 	· Monitor implementation of incentive programs ar sanctions
Forest Management Area Conservation Set Asides	 establish set asides; field demarcation management planning;	no negative impactsanticipatedpotential positive impacts	· performance monitoring;

	· enforcement of plan provisions	include greater consideration of biodiversity in forest planning; larger and areas set aside for biodiversity	
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Project component: Landowner Forest Decision Making

Activity	Potential Field Action	Nature and scope of potential environmental impacts	Mitigation proposed
Implement improved systems of resource decision making	· will lead to range of field activities;	· not able to determine impacts, a priori, as they will relate to specific recommendations which derive from improved processes;	 procedures must allow for EA of proposed field activities generated from process; monitoring or process implementation
Development options study	· long range development options defined	 not able to determine potential impacts as they will relate to specific recommendations which derive from improved processes; possibility that more landowners choose large industrial scale logging 	 as above ensure that the full range of forest management options and costs and benefits of each are presented.
Awareness and education materials	· training and other activities	· unlikely to have any direct negative impact	· as above (#1)
Policy to permit clan based conservation	·conservation area establishment on customary land;	· unlikely to have any direct negative impact;	· as above (#1)
Establishment of large conservation areas	collective decision making to identify specific initiatives	§ removal of areas from production forest status will improve biodiversity protection and conservation efforts;	· as above

Project component: Environmental Protection

Activity	Potential Field Action	Nature and scope of potential environmental impact	Mitigation proposed	Key
Technical assistance for design and implementation of environmental institution	· fielding of government environmental staff to monitor and assess compliance with environmental regulations	 no direct negative impacts; potential positive impacts resulting from improved environmental due diligence, oversight, and quality control on environmental issues 	· monitoring implementation progress;	·insti estab ·fund ·man accep other
Investigate feasibility of environmental levies to recover costs of operating institution	· conduct field research	 no direct impacts impacts depends on final recommendations, nature of the levies to implemented 	· feasibility study TOR to include specific reference to the environmental implications of such levies;	§ will a direc

Project component: Conservation Trust Fund

Activity	Potential Field Action	Nature and scope of potential environmental impact	Mitigation proposed	Key
Establishment of fund and		§ Governance and	§ Ensure those with	§
its governance		operation will effect fund's effectiveness	biodiversity conservation expertise and dedication control the fund	opera
Funding of activities related to biodiversity conservation	§ Establishment of small scale community-base sustained-use and conservation areas	 § Potential that too many small activities will cumulatively impact biodiversity; § Projects that do not completely incorporate biodiversity conservation 	§ Screening during grant-making process	§ is a c susta with conse

Forest Protection Policy Condition

- 1. All proposals for large scale agricultural development (50 hectares or more) which involve the clearance of forest, regardless of to whom they are first submitted, to be directed to:
 - (i) The PNG Forest Authority for its evaluation and Board endorsed report on the required forest clearing;
 - (ii) The Department of Agriculture and Livestock for its evaluation and report on the proposed agricultural development; and,
 - (iii) The Office of Environment and Conservation for its evaluation and report on the environmental impacts.

The NEC to consider all three above reports before giving it's approval for the proposal.

- 1. The proponent to show proof that they can fund the agricultural development completely without reference, or the need to, to sell or export forest produce to fund a project;
- 2. The proponent of the agricultural development to lodge with the Forest Authority a performance bond of not less than 15% of the total agricultural investment. This bond is to be used to rehabilitate the areas clearfelled where the agricultural development does not take place or its considered by the Department of Agriculture and Livestock to be likely to fail. Where successful development takes place the bond to be reimbursed:
- 3. The Forest Authority and Department of Agriculture and Livestock to coordinate and determine the most appropriate Timber Authority conditions; and
- 4. Where a project is approved, the issuance of the required Timber Authorities under the Forestry Act to be subject to the conditions prescribed in the Forestry Regulations, and to the Department of Agriculture and Livestock's procedures for the evaluation of progress with the implementation of the post forest clearance agricultural development work.

New Road Construction:

- 1. The construction of new public roads through forested areas not to be funded by the logging of a wide forest corridor;
- 2. Forest clearance for new public road construction to be limited to a 40 metre wide corridor; and
- 3. Before a timber authority is processed by the Forest Authority, the relevant Provincial Government must confirm in writing that the proposed road is on the National and or Provincial transport plan and that it agrees with the road being build, and that where it is to be responsible that it can afford to maintain the road.
- A. directed as follows:-
- 1. That the Forest Authority review the Forestry Regulations to ensure their consistency with the above policies before they are Gazetted;

- 2. That the Department of Agriculture and Livestock prepare internal procedures for the evaluation of proposed Agricultural Development Projects, and for the evaluation of successful implementation;
- 3. That the Department of Agriculture and Livestock finalise the preparation of these procedures by 1 August 1996;
- 4. That no more Timber Authorities be issued for agricultural clearance or new public road development until the above policies are in place and are being implemented;
- 5. That consistent with NEC Decision No. 36/96, proposals currently under consideration will be reviewed to ensure consistency with the above new forest protection policy and already existing guidelines and procedures. Where they are not consistent, any formal or implied approvals for these projects will be formally withdrawn. Specific proposal which will be reviewed are:
- · The Aitape forestry/oil palm project
- The Kiunga-Aimbak road
 The Gasmata/Whitman Range road

Annex 15: First Year Procurement Schedule

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ID	Task Name	Dur.	Pred.	Start	J	Α	S	0	N	D	J	F	М	Α	М		J	Α	S	0	N	D
1	1 BORROWERAGREEMENTTO PRE-PROJECT FINANCING	0 wks		Tue 7/17/01		7/17																
2	2 PROJECT NEGOTIATIONS	0 days		Tue 10/9/01				E 1	10/9													
3	3 BOARD PRESENTATION	0 days	2	Thu 11/29/01						11	/29											
4	4 PROJECTEFFECTIVENESS	0 wks		Sun 3/31/02									1	3/:	31							
5	5 BUDGETINGAND OPERATIONALFUNDING	19.4 wks		Tue 8/28/01			F	19.4	wk	s	0											
6	5.1 Establish Executing Agency Trust Account (EATA) in PNG Kina	4 wks	3FS+2 wks	Thu 12/13/01						-												
7	5.2 Budget and approve fundingof Project Management Unit	3 wks	2SF	Tue 9/18/01																		
8	5.3 Establish Project Oversight Committee (POC)	6 wks	2SF	Tue 8/28/01																		
9	5.4 Appoint Members of POC	6 wks	2SF	Tue 8/28/01																		
10	5.5 Appoint Component Managers in Implementing Agencies (IAs)	1 wk	3	Thu 11/29/01																		
11	5.6 Prepare offices and temporary furnishings to enable PMU to function	4 wks	7	Tue 10/9/01																		
12	5.7 ESTABLISH PROJECTMANAGEMENT UNIT	14.3 wks		Tue 9/11/01			III-	14.3	wks	-												
13	5.7.1 Employ Project Manager (PM) within PMU	4 wks	2SF	Tue 9/11/01																		
14	5.7.2 Appointment of Accountant, Procurement Specialist and Secretary for PMU	2 wks	13FS+8.3 wks	Wed 12/5/01																		
15	6 PROCUREMENTPRELIMINARIES	11 wks		Thu 11/29/01					ı	11	wks	-0										
16	6.1 Prepare Terms of Reference for Technical Assistance and Contracted Services	8 wks	3,13	Thu 11/29/01																		
17	6.2 Review of TORs by Bank and issue "No Objection".	3 wks	16	Thu 1/24/02																		
18	6.3 Publication of General Procurement Notice in "Development Business" for ICB contracts	1 wk	3,14	Wed 12/19/01						0												
19	7 DETAILS BY CATEGORYAND PROCUREMENT METHOD	49.6 wks		Tue 7/17/01						49.6	wks	3				-	•					
20	7.1 CIVILWORKS	24.7 wks		Wed 12/19/01								24.	7 wl	ks								
21	7.1.1 Civil Works packages with value from US50,00 and above (NCB)	24.7 wks		Wed 12/19/01								24.	7 wl	ks		111						
22	7.1.1.1 Prepare technical specifications and compile SBDs	6 wks	3,14	Wed 12/19/01																		
23	7.1.1.2 Prior review of documents by Bank and issue "No Objection"	2 wks	22	Wed 1/30/02																		
24	7.1.1.3 Invitation to Bid	1 wk	4,23	Sun 3/31/02									ı									
25	7.1.1.4 Bid period	4 wks	24SS	Sun 3/31/02																		

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ID	Task Name	Dur.	Pred.	Start	D	J	F	М	A	М	J	J	Α	S	C		N	D	J	F	М .	A	М
26	7.1.1.5 Bid opening	1 day	25	Fri 4/26/02																			
27	7.1.1.6 Evaluation of bids by FCMTB	2 wks	26	Mon 4/29/02						-						T						T	
28	7.1.1.7 Evaluation report sent by PMU to IBRD	1 wk	27	Mon 5/13/02						0						T						T	
29	7.1.1.8 Award of contract to successful bidder	3 wks	28	Mon 5/20/02						ı						T						T	
30	7.1.1.9 Sign contract	0 wks	29	Fri 6/7/02								6/7			T	T						1	
31	7.1.2 CIVIL WORKS PACKAGES COSTING LESS THAN US\$50,000 (NCB)	23.7 wks		Wed 12/19/01			23	.7 w	ks		101				T	T						1	
32	7.1.2.1 Prepare technical specifications and compile SBDs	6 wks	3,14	Wed 12/19/01			1								T	Ť					1	1	
33	7.1.2.2 Invitation to Bid	1 wk	4,32	Sun 3/31/02					0						T	†			1			1	
34	7.1.2.3 Bid period	4 wks	33SS	Sun 3/31/02						1					T	1			1		1	1	_
35	7.1.2.4 Bid opening	1 day	34	Fri 4/26/02						•									1			1	_
36	7.1.2.5 Evaluation of bids by FCMTB	2 wks	35	Mon 4/29/02						-									1			1	_
37	7.1.2.6 Award of contract to successful bidder	3 wks	36	Mon 5/13/02					İ			İ		İ	t	1			1		1	1	_
38	7.1.2.7 Sign contract	0 wks	37	Fri 5/31/02							5	5/31							1			1	_
39	7.2 GOODS	26.7 wks		Wed 12/19/01			2	6.7	wks		<u> </u>								1			1	_
40	7.2.1 GOODS CONTRACTS USING ICB PROCEDURESWITH VALUEOF US\$100,000 OR MORE	26.7 wks		Wed 12/19/01			2	6.7	wks		ļ.					1			1			1	_
41	7.2.1.1 Prepare technical specifications and compile SBDs	6 wks	3,14	Wed 12/19/01	-											Ť						1	
42	7.2.1.2 Prior review of documents by IBRD and issue "No Objection"	3 wks	41	Wed 1/30/02																		1	
43	7.2.1.3 Invitation to Bid by PMU	1 wk	4,42	Sun 3/31/02																			
44	7.2.1.4 Bid period	6 wks	43SS	Sun 3/31/02						-					T	Ť					1	1	
45	7.2.1.5 Bid opening	1 day	44	Fri 5/10/02						ı					t	\dagger			+	1		+	
46	7.2.1.6 Evaluation of bids by FCPTB	2 wks	45	Mon 5/13/02			T		T		1	T		T	t	\dagger		1	+	1	\dagger	†	_
47	7.2.1.7 "No Objection" by Bank to award contract	1 wk	46	Mon 5/27/02							0				t	+			+	+		+	_
				Mon 6/3/02	\vdash		\vdash	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	_
48	7.2.1.8 Award of contract to successful bidder	3 wks	47	1101 0 3/02																			
48	I	3 wks	48	Fri 6/21/02							+	6/:	21			+				+		+	_

ID	Task Name	Dur.	Pred.	Start	D	J		М		М		J	Α	S	0	N	D	J	F	М	Α	М
50	7.2.2 GOODS CONTRACTS (NCB) WITH VALUEOF US\$20,000 UP TO US\$100,000	22.7 wks		Wed 12/19/01				.7 wl		١,												
51	7.2.2.1 Prepare technical specifications and compile SBDs	4 wks	3,14	Wed 12/19/01		5																
52	7.2.2.2 Prior review of documents by PMU Procurement Specialist	1 wk	51	Wed 1/16/02		0																
53	7.2.2.3 Issue "No Objection" to bid by PMU	1 wk	52	Wed 1/23/02																		
54	7.2.2.4 Invitation to Bid	1 wk	4,53	Sun 3/31/02					•													
55	7.2.2.5 Bid period	3 wks	54SS	Sun 3/31/02																		_
56	7.2.2.6 Bid opening	1 day	55	Fri 4/19/02																		_
57	7.2.2.7 Evaluation of bids by FCMTB	2 wks	56	Mon 4/22/02																		
58	7.2.2.8 "No Objection" by PMU to award contract	1 wk	57	Mon 5/6/02				t		0												_
59	7.2.2.9 Award of contract to successful bidder	2 wks	58	Mon 5/13/02						-	ı											_
60	7.2.2.10 Sign contract	0 wks	59	Fri 5/24/02						١,	5/2	24										_
61	7.2.3 GOODS CONTRACTS (SHOPPING) WITH VALUELESS THAN US\$20,000	17.5 wks		Wed 12/19/01	0	1	7.5	wks	<u> </u>										П			
62	7.2.3.1 Prepare schedule of goods to be procured, delivery schedule, and quotation format	2 wks	3,14	Wed 12/19/01	-																	
63	7.2.3.2 Request for a minimum of three written quotations from suppliers	2 wks	4,62	Sun 3/31/02					-													
64	7.2.3.3 Evaluation of quotations by PMU	1 wk	63	Fri 4/12/02					0													
65	7.2.3.4 Award and sign contract	0 wks	64	Thu 4/18/02						4/1	8											
66	7.3 TECHNICALASSISTANCE CONTRACTS	19 wks		Thu 2/14/02					19 v	vks	-											_
67	7.3.1 FIRMS	19 wks		Thu 2/14/02					19 v	vks	_											_
68	7.3.1.1 CONTRACTS WITH VALUE EQUALTO OR GREATERTHAN US\$100,000 (QCBS)	17 wks		Thu 2/14/02					17 w	ks	-											
69	7.3.1.1.1 IAs and PMU prepare cost estimates and budget	2 wks	14,16,17	Thu 2/14/02																		_
70	7.3.1.1.2 Prepare "short list" of firms	2 wks	69SS	Thu 2/14/02			0			T												_
71	7.3.1.1.3 Prepare Request for Proposals, Information to Consultants & Contract Form	2 wks	69SS	Thu 2/14/02																		
72	7.3.1.1.4 Review and "No Objection" by IBRD to issue RFP	3 wks	69,70,71	Thu 2/28/02																		
73	7.3.1.1.5 PMU Issue RFP	4 wks	72	Thu 3/21/02				ı	ļ													_
74	7.3.1.1.6 Receive proposals	0 wks	73	Tue 4/16/02						4/1	6											_

ID	Task Name	Dur.	Pred.	Start	F	М	A	Ι.	И		J	Α	s	0	N	D	J	F	M	Α	М)03
75	7.3.1.1.7 Evaluate technical proposals:	1 wk	74	Wed 4/17/02	Г	IVI	1^	- "	VI	J	J	Ĥ	13	۲	IN	۲	۲	۲	IVI	A	IVI	J	٦
	consideration of quality						1	ום															
76	7.3.1.1.8 Evaluate financial proposal	1 wk	75	Wed 4/24/02																			
77	7.3.1.1.9 Final evaluation of quality and cost	2 wks	75,76	Wed 5/1/02					ו														
78	7.3.1.1.10 Negotiate contract with successful firm	2 wks	77	Wed 5/15/02				1															
79	7.3.1.1.11 "No Objection" by IBRD	2 wks	78	Wed 5/29/02			T																
80	7.3.1.1.12 Sign contract	0 wks	79	Tue 6/11/02			İ			Â	6/11							T					
81	7.3.1.2 CONTRACTS WITH VALUE LESS THAN US\$100,000 (CQ)	19 wks		Thu 2/14/02			19 v	vks		-10													
82	7.3.1.2.1 IAs and PMU prepare cost estimates and budget	2 wks	14,16,17	Thu 2/14/02			Ī																
83	7.3.1.2.2 Prepare Request for Proposals, Information to Consultants & Contract Form	2 wks	82SS	Thu 2/14/02			Ī																
84	7.3.1.2.3 Review and "No Objection" by IBRD to issue RFP	3 wks	82,83	Thu 2/28/02																			
85	7.3.1.2.4 PMU Issue RFP	2 wks	84	Thu 3/21/02		0																	
86	7.3.1.2.5 Receive proposals	0 wks	85	Tue 4/2/02				4/2															
87	7.3.1.2.6 Evaluate proposals	1 wk	86	Wed 4/3/02			0																
88	7.3.1.2.7 Negotiate contract with successful firm	2 wks	87	Wed 4/10/02			0	1															
89	7.3.1.2.8 "No Objection" by IBRD	2 wks	88	Wed 4/24/02				F															
90	7.3.1.2.9 Sign contract	0 wks	89	Tue 5/7/02			Ī		5/	7													
91	7.3.1.2.10 PMU Issue RFP	2 wks	90	Wed 5/8/02				-															
92	7.3.1.2.11 Receive proposals	0 wks	91	Tue 5/21/02						5/2	1												
93	7.3.1.2.12 Evaluate technical proposals: consideration of quality	1 wk	92	Wed 5/22/02					0														
94	7.3.1.2.13 Evaluate financial proposal	1 wk	93	Wed 5/29/02						ı													
95	7.3.1.2.14 Final evaluation of quality and cost	2 wks	93,94	Wed 6/5/02					1								İ						
96	7.3.1.2.15 Negotiate contract with successful firm	1 wk	95	Wed 6/19/02						0							T						
97	7.3.1.2.16 Sign contract	0 wks	96	Tue 6/25/02			T		1	1	6/:	25				T	İ						
98	7.3.2 INDIVIDUALS	12 wks		Thu 2/14/02		12 v	vks	-									T					П	
99	7.3.2.1 CONTRACTS WITH VALUE EQUALTO OR GREATERTHAN US\$100,000 (CQ)	12 wks		Thu 2/14/02		12 v	vks	-															

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1D	Task Name	Dur. 2 wks	Pred. 14,16,17	Start Thu 2/14/02	F	М	1	A	М	J	J	Α	S	0	N	D	J	F	М	Α	М	J	J
100	7.3.2.1.1 IAs and PMU prepare cost estimates and budget	2 wks	14,16,17	Thu 2/14/02	=																		
101	7.3.2.1.2 Prepare Request for Proposals, Information to Consultants & Contract Form	2 wks	100SS	Thu 2/14/02	-																		L
102	7.3.2.1.3 Review and "No Objection" by IBRD to issue RFP	3 wks	100,101	Thu 2/28/02																			
103	7.3.2.1.4 PMU Issue RFP	2 wks	102	Thu 3/21/02																			
104	7.3.2.1.5 Receive proposals	0 wks	103	Tue 4/2/02				4/2	2														
105	7.3.2.1.6 Evaluate proposals	1 wk	104	Wed 4/3/02			0	1										T					
106	7.3.2.1.7 Negotiate contract with successful firm	2 wks	105	Wed 4/10/02			0																
107	7.3.2.1.8 "No Objection" by IBRD	2 wks	106	Wed 4/24/02			T	+	1														
108	7.3.2.1.9 Sign contract	0 wks	107	Tue 5/7/02				1	5.	7								T					
109	7.3.2.2 CONTRACTS WITH VALUE FROM US\$50,000 UP TO US\$100,000 (CQ)	12 wks		Thu 2/14/02	100	12 v	wks	s															
110	7.3.2.2.1 IAs and PMU prepare cost estimates and budget	2 wks	14,16,17	Thu 2/14/02														T					
111	7.3.2.2.2 Prepare Request for Proposals, Information to Consultants & Contract Form	2 wks	110SS	Thu 2/14/02														T					
112	7.3.2.2.3 Review and "No Objection" by IBRD to issue RFP	3 wks	110,111	Thu 2/28/02																			
113	7.3.2.2.4 PMU Issue RFP	2 wks	112	Thu 3/21/02		0																	
114	7.3.2.2.5 Receive proposals	0 wks	113	Tue 4/2/02				4/2	2														
115	7.3.2.2.6 Evaluate proposals	1 wk	114	Wed 4/3/02			0																
116	7.3.2.2.7 Negotiate contract with successful firm	2 wks	115	Wed 4/10/02			0																
117	7.3.2.2.8 "No Objection" by IBRD	2 wks	116	Wed 4/24/02					ı														
118	7.3.2.2.9 Sign contract	0 wks	117	Tue 5/7/02				1	5	7													
119	7.3.2.3 CONTRACTS WITH VALUE LESS THAN US\$50,000 (CQ)	12 wks		Thu 2/14/02	10-	12 v	wks	- 1										T					
120	7.3.2.3.1 Prepare preliminary list of consultants	2 wks	14,16,17	Thu 2/14/02																			
121	7.3.2.3.2 Request consultants to furnish experience and competence data	3 wks	120	Thu 2/28/02		-																	
122	7.3.2.3.3 Review data and prepare "Short List" of most qualified consultants	2 wks	121	Thu 3/21/02		0																	
123	7.3.2.3.4 Selection of most qualified individual and request financial proposal	2 wks	122	Wed 4/3/02			-	1															
124	7.3.2.3.5 Evaluate proposal	2 wks	123	Wed 4/17/02			T											T					

ID	Task Name	Dur.	Pred.	Start	F	М	Α	. N	Л		J	A	s	То	N	Т	+.	ıΤ	F	м	A	М	20	03 ქ
125	7.3.2.3.6 Negotiate contract with individual	1 wk	124	Wed 5/1/02				0																
126	7.3.2.3.7 Signcontract	0 wks	125	Tue 5/7/02					5/	7								Ī						
127	7.4 OTHER CONTRACTED SERVICES	19.2 wks		Thu 2/14/02		1	9.2	wks	s	_								1						
128	7.4.1 ALL CONTRACTS (ICB) WITH VALUEEQUALTO US\$100,000 OR MORE	19.2 wks		Thu 2/14/02	101	1	9.2	wks	s	_														
129	7.4.1.1 Prepare technical specifications and biddingdocuments	4 wks	14,16,17	Thu 2/14/02														1						
130	7.4.1.2 Prior review of documents by IBRD and issue "No Objection"	3 wks	129	Thu 3/14/02														1						
131	7.4.1.3 Invitation to Bid	1 wk	130	Wed 4/3/02			0											1						_
132	7.4.1.4 Bid period	6 wks	131SS	Wed 4/3/02				ļ										1					1	
133	7.4.1.5 Bid opening	1 day	132	Wed 5/15/02					1									+	+	1			+	_
134	7.4.1.6 Evaluation of bids by FCMTB	2 wks	133	Thu 5/16/02														+	1	1		1	+	_
135	7.4.1.7 "No Objection" by Bank to award contract	1 wk	134	Thu 5/30/02						1								1					7	
136	7.4.1.8 Award of contract to successful bidder	3 wks	135	Thu 6/6/02														1					+	
137	7.4.1.9 Sign contract	0 wks	136	Wed 6/26/02							6/	26												
138	7.4.2 ALL CONTRACTS (NCB) WITH VALUEEQUALTO US\$20,000 UP TO US\$100,000	15.2 wks		Thu 2/14/02	101	15.	2 w	ks	-															
139	7.4.2.1 Prepare technical specifications and compile SBDs	4 wks	14,16,17	Thu 2/14/02		-																		
140	7.4.2.2 Prior review of documents by IBRD and issue "No Objection"	3 wks	139	Thu 3/14/02		-												1						
141	7.4.2.3 Invitation to Bid	1 wk	140	Wed 4/3/02			0																	
142	7.4.2.4 Bid period	3 wks	141SS	Wed 4/3/02				1										T						
143	7.4.2.5 Bid opening	1 day	142	Wed 4/24/02				ı										1						
144	7.4.2.6 Evaluation of bids by FCMTB	2 wks	143	Thu 4/25/02				†										1					1	
145	7.4.2.7 "No Objection" by Bank to award contract	1 wk	144	Thu 5/9/02				6	1									1	1	1		\top	7	
146	7.4.2.8 Award of contract to successful bidder	2 wks	145	Thu 5/16/02														1		1		1		
147	7.4.2.9 Sign contract	0 wks	146	Wed 5/29/02						5/	29							+	1	1		1	\dashv	_
148	7.4.3 ALL CONTRACTS (SHOPPING) WITH VALUELESS THAN US\$20,000	5 wks		Thu 2/14/02		vks		\dagger	1									+	\dagger	1	1		+	_
149	7.4.3.1 Prepare schedule of goods to be procured, delivery schedule, and quotation format	2 wks	14,16,17	Thu 2/14/02	_	-			1									\dagger		1			+	_

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ID	Task Name	Dur.	Pred.	Start	J	Α	S	0	N	D	J	F	М	Α	М	J	J	Α	S	0	Ν	D
150	7.4.3.2 Request for a minimum of three written quotations from suppliers	2 wks	149	Thu 2/28/02																		
151	7.4.3.3 Evaluation of quotations by PMU	1 wk	150	Thu 3/14/02									0									
152	7.4.3.4 Award and sign contract	0 wks	151	Wed 3/20/02										3/20	0							
153	7.5 OTHER OPERATIONAL COSTS	42.6 wks		Tue 7/17/01					42.	6 wl	ks				101							
154	7.5.1 CONTRACTS WITH VALUEEQUAL TO OR GREATERTHAN US\$20,000 (NCB)	12.2 wks		Thu 2/14/02								12	.2 v	wks	-01							
155	7.5.1.1 Prepare technical specifications and compile SBDs	4 wks	14,16,17	Thu 2/14/02								4	1									
156	7.5.1.2 Prior review of documents by PMU Procurement Specialist	1 wk	155	Thu 3/14/02									0									
157	7.5.1.3 Invitation to Bid	1 wk	156	Thu 3/21/02									0									
158	7.5.1.4 Bid period	3 wks	157SS	Thu 3/21/02																		
159	7.5.1.5 Bid opening	1 day	158	Wed 4/10/02										ı								
160	7.5.1.6 Evaluation of bids by FCPTB	2 wks	159	Thu 4/11/02										_								
161	7.5.1.7 Award of contract to successful bidder by PMU	2 wks	160	Thu 4/25/02																		
162	7.5.1.8 Sign contract	0 wks	161	Wed 5/8/02												5/8						
163	7.5.2 CONTRACTS (SHOPPING)WITH VALUELESS THAN US\$20,000	36.4 wks		Tue 7/17/01				3	6.4 w	vks			-									
164	7.5.2.1 Prepare schedule of goods to be procured, delivery schedule, and quotation format	2 wks	14,16,17	Thu 2/14/02																		
165	7.5.2.2 Request for a minimum of three quotations from suppliers	2 wks	164	Thu 2/28/02									1									
166	7.5.2.3 Evaluation of quotations by PMU	2 wks	165	Thu 3/14/02									-									
167	7.5.2.4 Award and sign contract	0 wks	166	Wed 3/27/02										3/2	27							

Annex 16: Six-year Implementation Plan

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ID	Task Name	Duration	Predecessors		1 01			04	01			04	01			04	⊃ 4T			14 6				04	04		Q3 C		<u> </u>
_			Freuecessors	Ų,	+ (4)	42	Q3	Q4	QΙ	Q2	Q3	Q4	QΙ	Q2	Q3	Q4 1	الد	uz i	ع ادید	4	211	ا عد	uз	Q4	QΙ	QZ	Q3 C	4	71
1	PROJECTNEGOTIATIONS	0 wks																											
				L					Ш						_	4	_	4	_	_	4	4	_				_	_	
2	BOARD PRESENTATION	0 wks		4	1																								
3	PROJECTEFFECTIVENESS	0 days		T				П	П	Т		Т		\Box	\neg	\top	\neg	\dashv	\neg	T	\top	\dashv	\neg				\top	\top	\neg
						Τ																							
4	PMRBASED DISBURSEMENT	44.8 wks										т		\Box	\dashv	\top	\dashv	\dashv	\rightarrow	\top	\top	\dashv	\dashv	\neg	\neg		\top	\pm	\neg
-	I MINDINGED BIOD CROEMENT				'	•																							
5	Deview to determine feasibility of adenting	44.8 wks	3SS	⊢	+	ь			Н	Н	Н	Н	_	\vdash	\dashv	+	\dashv	\dashv	+	+	+	+	\dashv	\dashv	\dashv	-	+	+	-
5	Review to determine feasibility of adopting	44.0 WK3	300			Г	П		ГΙ																				
	PMR based disbursement																												
6	LANDOWNERFOREST DECISION-MAKING	313.6 wks		-	-				\blacksquare					\Box	\rightarrow	_	\dashv	\dashv	\rightarrow	_	\rightarrow	\rightarrow	\rightarrow				=	_	_
0		313.0 WK3			岬																							₩	
	COMPONENT																												
_		313.6 wks		L	_				\Box					\Box	_	_	4	\dashv	\perp	_	4	4	_	_			_	\perp	_
7	Development Options Study	313.6 WKS			ii.																	П					\Box	T	1
				L			\perp		Ш			\perp				\perp				\perp	\perp							\perp	
8	DOS Strategy Adoption and LDOU	26.2 wks	3SS-58 days	1		+	†]			1										ſ			I				
	Establishment			1								1																	
				L	\perp				Ш			\perp				\perp				\perp								\perp	
9	Development of DOS methods and	39 wks	8SS+89 days	٦	1	-	H	H	-	_	_	1	_	Π	T	Т	T	Т	T		T	Т	T	T		П	T	T	٦
	mechanisms			1								1																	
				L	1		L	L	LΙ	L	L	L	L	Ll	_	_[_			_	_	_	_	_			_ [_ [
10	LDOU and DOS training	152 wks	9SS+29 days	Г			\leftarrow						H		=	+	7	-	\top	T	T	7	\neg					\top	\neg
11	Implementation of DOS 1 activities	229 wks	10SS+60 days		T	T	١.					H	⊨		-	4	4	4	4	4	4	4	-	4	-		\top	T	\neg
	,																												
12	DOS 2 Implementation	230 wks	11SS+48 wks	T	T	T	Т	П	П	Т	-		_			4		_	4	4	4	4		_			=		\neg
	2002 implementation																												
13	Develop and distribute educational and	302 wks	3SS	t	+											_		_	_	土	_	_					\equiv	⇉	\neg
	information materials																												
	mornation materials																												
14	MONITORINGTARGET:LDOU	0 wks	8	H	+	+			Н	Н	\vdash	\vdash		\vdash	\dashv	\dashv	\dashv	\dashv	+	+	+	\dashv	\dashv	\dashv	\dashv	\dashv	+	+	\dashv
	established and DOS strategy adopted						Т.																						
	established and DO3 strategy adopted																												
15	MONITORING	0 wks	8	Ͱ	+	╁			Н			-		\vdash	\dashv	+	\dashv	\dashv	+	-	+	\dashv	\dashv	-	\dashv	-	+	+	-
15	MONITORING	U WKS	•																										
	TARGET:Implementation of education																												
	plan for landowners			L	╄	╙	╙	Ш	Щ		L	╙	_	Щ	4	4	4	4	4	4	4	4	4	_	_	_	4	4	_
16	Strengthening of LandownerRepresentative	300 wks																										T	1
	Mechanisms																												
				L												_		\perp	\perp			\perp						\perp	
17	Review and updating ILG legislation	91.6 wks	3SS+2 wks			-	÷				_	H	÷																
	and regulations																												
				L																1								\perp	
18	Drafting and publication of ILG	39 wks	17	1]			1		H	\rightarrow							ſ			I				
	procedures manual				1							1																	
				L	\perp		L			L	L	L	L			\Box			\perp	⊥	\perp								
19	Implementing new ILG regulation	157.4 wks	18FS+12 wks	Г	Г		Г		П			Г		П	\neg	T	7	Ŧ	Ŧ	Ŧ	Ŧ	Ŧ	7	7	7	7	—	4	П
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				L	1	L	L	L	LΙ	L	L	L	L	Ll	_	_1	_	_	_		_[_	_	_	_			_ [_ [
20	Community training in ILG formation	157.4 wks	19SS	Г											\neg	-	7	\dashv	$\overline{}$	Ŧ	7	7	=	=			\Rightarrow	4	\neg
				1								1																	
				1	1		L	L	LΙ	L	L	L	L	Ll	_	_[_			_	_	_	_	_			_ [_ [
21	Landowner organization formation	193.4 wks	20SS-36 wks			П	П			П		П			-	-	-	-	+	÷	+	+	-	=	=	-	=	⇉	П
	_			1								1																	
				1								1																	
22	MONITORINGTARGET: Approvalof	0 wks	17FS+4 wks	Т	Т	Т	П						4	П	\neg	\neg	┪	寸	\dashv	T	\dashv	\dashv	\neg	T	\neg	T	\neg	\top	\neg
	necessary enabling regulations			1								1	Γ																
					1							1																	
23	MONITORINGTARGET:Presentation	0 wks	22FS-8 wks	t	\top	†	\vdash	\vdash	Н	\vdash		1		\vdash	\dashv	\dashv	\dashv	\dashv	+	$^{+}$	\dashv	\dashv	\dashv	7		_	+	+	\dashv
	of necessary legislation to Parliament												T																
	or necessary registation to rarnament				1							1																	
		A1	23FS+12 wks	⊢	+	\vdash	\vdash	\vdash	Н	\vdash	\vdash	\vdash	-	\vdash	-	\dashv	4	\dashv	+	+	+	+	-	_	_	_	+	+	\dashv
24	MONITORINGTARGET: Workshop on	0 wks	23FS+12 WKS		1							1																	
	best practices for landowner			1								1																	
	organizations			L	1				Ш				_	Ш		_		_	\perp	1	\perp	_		_			_	\perp	
25	MONITORINGTARGET:Representative	0 wks	21SS+78 wks	1								1							7										
	landowner organizations functioning in				1							1																	
	20% of forestry project areas			L	\perp		L	\perp		L		L	L			\Box			\perp	⅃	\perp								
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26	MONITORINGTARGET:Representative landowner organizations functioning in 80% of forestry projectareas	0 wks	25FS+111 wks																										
27	Land Group Based Conservation & Resource Management Areas	297.5 wks																										7	ı
28	Design mechanizations and legal basis for land group based CMAs	39 wks	3FS+4 wks			-																							
29	Develop capacity in DEC to help landowner groups	126.4 wks	28SS+4 wks								Ī																		
30	Establish initial community based CMAs	235 wks	29SS+52 wks							•	Ī		Ī													Ī	T	-	
31	MONITORINGTARGET:Legal and regulatory basis for establishment of landowner managed CMAs	0 wks	28FS+52 wks			Ī					Ī																		
32	MONITORINGTARGET:CMA projects operating in one major watershed	0 wks	30SS+104 wks			İ					İ																		
33	MONITORINGTARGET:CMA projects operating in three major watersheds	0 wks	32SS+137.5 wks																									-	_
34	CONSERVATION TRUST FUND	315.8 wks			r	T					T														=		_	71	_
35	Establishment Activities	52 wks			f				İ																				
36	Establish administrative office	52 wks	2		İ	İ	İ	F			T											Г							_
37	Establish investment management and financial audit system	39 wks	36SS			İ	Ť				Ī																		
38	Commencement Activities	309.8 wks																				_				Ī		711	
39	Fund raising plan development and implementation	104.6 wks	37												Ť														
40	Utilize project grants / establish demonstration projects	104 wks	37												Ť														
41	Develop project appraisal and monitoring capacity	39 wks	3			Г																							
42	MONITORINGTARGET:Boardof Trustees appointed and operating	0 wks	37SS+6 wks																										
43	MONITORINGTARGET:Legal instruments, operational manual and proceduresapproced.and appraisal	0 wks	41SS+8 wks								Ī																		
44	MONITORINGTARGET:Twenty demonstration projects under implementation	0 wks	40SS+120 wks			Ī					Ī					1													
45	CTF Endowment	169.8 wks													ľ											T	_	11	
46	Endowment fund establishment	26 wks	44SS-13 wks		İ	t	T				t						F											+	_
47	Endowment fund capitalization	156.8 wks	46SS+13 wks		İ	T	T				T					•										_		=	_
48	Endowment management and monitoring activities	169.8 wks	47SS-13 wks		İ	T	T				T															_		=	_
49	MONITORINGTARGET:GEF endowmentfunds in place	0 wks	47SS+13 wks		İ	T	T				T						ı											1	
50	MONITORINGTARGET:Additional donorendowmentfunds in place	0 wks	49SS+141 wks	T	t	İ					İ				T										П	T	\forall		_

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51	SUSTAINABLEFORESTMANAGEMENT	298 wks																								7	J		
52	ImprovedForest Operations, Inspection, and Monitoring	297.8 wks																								7	П	1	
53	Review of FMAs, forest permits, forest operations, and monitoring systems	156.6 wks	3SS+4 wks	-	T						Ī		T																
54	Actions to establish more efficient monitoring system and its implementation	206.8 wks	53SS+91 wks								-															╡		T	
55	Performance bond design and approval	52 wks	5388	-				Ť																		T		T	
56	Improved sanctioning capability by GoPNG, including performance bond application	52 wks	55SS+13 wks		-																					T		1	
57	Implement sanctions and performance bond	232.8 wks	56						_																	╗			
58	Review and approval of new system for forest charges	67 wks	55SS	-																									
59	Implementation of new forest charges system	232.8 wks	57SS						-																	₹		1	
60	MONITORINGTARGET:Fifteen forest operations reviewed	0 wks	55																							T		1	
61	MONITORINGTARGET:New forest revenue systems approved	0 wks	55																							T		T	
62	MONITORINGTARGET:Upgraded inspection and monitoring proceduresin 30% of forest operations	0 wks	59SS+104 wks																							T		1	
63	MONITORINGTARGET:Newincentives and logging codes approved	0 wks	62																							T		1	
64	MONITORINGTARGET:Upgraded inspection and monitoring proceduresin 80% of forest operations	0 wks																				6				T		T	
65	Forest Planning	298 wks				H	H	H	H	H	H	H						=	=	=		=	=	-	\dashv	—	-	+	_
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66	Strengthening environmental GIS capacity in DEC	104 wks	3SS+4 wks	-			L				H	-	H												1	\dagger	+	\dagger	_
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67	Improve protocols and NFS capability to use environmental GIS data	104 wks	66SS									Ī																	
68	Environmental GIS data integration in forestryplanning	275.8 wks	66SS+22 wks																							┪			
69	Establish guidelines for conservation set asides	52 wks	66SS+13 wks		-																					T		T	
70	Recalculation of AAC and cutting cycles	156.8 wks	69SS		-																					T		Ť	
71	Research into forest management and silviculture	284.8 wks	69SS		-	İ	F	F	İ				F													╡		†	
72	Strengthening NFS forest management planning and upgrading national provincial and project plans	285 wks	69SS		-																					寸		†	
73	Review and improve FMAdocument	91.6 wks	3SS+13 wks		F						T		T													1		†	
74	MONITORINGTARGET:AdequateGIS operational capability in DEC and in FS	0 wks	73FS+5 wks																							\dagger		†	
75	MONITORINGTARGET:ApprovedFMA by Forestry Board	0 wks	73FS+5 wks		T								T													7		†	

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ID	Task Name	Duration	Predecessors	Q3 Q	4 C	11 Q	2 Q	3 Q	4 Q	1 Q	2 Q	3 Q4	1 Q	1 Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
76	MONITORINGTARGET:New FMA applied to all new proposals	0 wks	75SS+65 wks																									
77	MONITORINGTARGET:New AAC and silvicultural prescriptions applied in all new operations	0 wks	73FS+5 wks																									
78	MONITORINGTARGET: New AAC and silvicultural prescriptions applied in all operations	0 wks																										
79	Post Harvest Forest Management and Plantations	297.8 wks																										
80	Review regeneration trials to date and establish further trials	297.8 wks	3SS+4 wks		ı	•	Ť	Ť	Ť	Ť		Ť	İ													T		=
81	Refine and disseminate natural regeneration treatment prescriptions	262.8 wks	80SS+31 wks		ı		İ		Ť	Ť	İ	Ť	İ															=
82	Agreements, training,and implementation of regeneration pilots	262.8 wks	80SS+31 wks		ı		İ		Ť	Ť	İ	T	İ															=
83	Expansion of regeneration program beyond pilots	130.8 wks	82SS+130 wks							İ																		I
84	Establish and staff plantation investment promotion unit	52 wks	3FS+12 wks			1	Ť	\dagger	Ť	Ť	-																	
85	Plantation development strategy paper completed	65 wks	84SS+25 wks		Ī		Ì		Ť	Ť	İ		İ															
86	Plantations rehabilitation and establishment of demonstrations	229.8 wks	85SS+35 wks		ı		İ			Ť		Ť	İ															=
87	Development of plantation promotion prospectus and investor solicitation	130 wks	86SS+26 wks		Ī		Ì			Ť			-										_					
88	MONITORINGTARGET:Regeneration regulations and guidelines developed	0 wks	87SS+9 wks																									
89	MONITORINGTARGET:Plantation strategy study and site identification completed	0 wks	88SS																									
90	MONITORINGTARGET: Feasibility study and prospectus completed	0 wks	88SS+65 wks																									
91	MONITORINGTARGET:Regeneration regulations and guidelines applied to all forest operations	0 wks																						1				
92	ENVIRONMENTAIASSESSMENT AND MONITORING	332 wks			Ī				Ī																		Ī	
93	Environmental Assessment, Monitoring and Regulation	301.8 wks					İ	T	Ī	İ																	7	_
94	Complete and enact regulations under Environment Bill	52 wks	388		Ī	T	Ť	T	Ť	Ť																		
95	Draft and finalize forestry environmental policy	65 wks	388		Ť	Ť	İ	Ť	Ť	Ť																		
96	Deliver awareness training on environmental regularitory systems	209.4 wks	95SS+26 wks		t	†	\dagger	+	Ť	t	+	Ť	İ	İ											П		7	
97	Design new permits system and build permits database	65.4 wks	96SS		1	1	T	+	t	†	İ	+													П		7	
98	Review options, draft and approve regulations to implement users' fees	42 wks	97SS-4 wks		1	1	\dagger	Ť	Ť	Ŧ	-		l												П		7	
99	Develop and implement accounting and management system for fee collection	253.8 wks	3SS+48 wks		t	†	\dagger	†	T	ŧ	Ť	Ť	İ	İ													7	=
100	Develop criteria and approach for review of existing forestry projects permits system	39 wks	99SS							Ť		T																

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ID	Task Name	Duration	Predecessors	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	2 Q3	3 Q4	4 Q	ΙQ	2 Q:	Q	4 Q	11	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3 (2 4
101	Implement substitute environmental permits conditions with existing projects	201.8 wks	100FS+9 wks											-				l											Ŧ	=
102	MONITORINGTARGET: New act and regulation drafted	0 wks	99SS,100SS							1																				
103	MONITORINGTARGET: Thirty percent of all forestry operations subject to environmental assessment	0 wks	101SS+65 wks																											
104	MONITORINGTARGET: All forestry operations subject to environmental assessment	0 wks																												
105	Environmental Monitoring by Local Communities	332 wks																												_
106	Review and amendment of legal options for community monitoring	61 wks	3SS+9 wks				c					Ī																		
107	Development and implementation of program for training development and support for community monitoring	68 wks	106FS-13 wks								-					Ť														
108	Training of community assessors	176.8 wks	107													•		Ī	1										Ī	=
109	Establishment of four pilot community assessment areas	222.8 wks	107SS+22 wks															Ī											Ī	=
110	Evaluation of pilot schemes and establishment of further community assissment programs	131.8 wks	109SS+86 wks																											_
111	MONITORINGTARGET:Environmental assessment training modules ready	0 wks	109SS+21 wks											Í																
112	MONITORINGTARGET:One hundred community assessors trained	0 wks	110SS																1											
113	MONITORINGTARGET:Twenty pilot assessment programs implemented	0 wks																								1				

Supervision Plan to Mid-term Review

As noted under item 5 of **C. Project Description Study**, in the main text of this document, the Quality Enhancement Review, carried out for this project in February 2000, strongly recommended that, given the high risk environment in which this project is to be implemented, it requires:

"..intensive supervision, beyond that required for conventional investment operations, particularly during the first three years of the project implementation period."

The QER recommended that a specific annex be appended to the Project Appraisal Document, detailing specific milestones, priority areas for supervision, a supervision plan, and proposals for the use of trust funds and cooperative arrangements with other donors to implement enhanced supervision. It further recommended that some specific mention needs to be made of the resources that the project will provide to enhance environmental assessment and monitoring and evaluation in this area. It also proposed that the Bank needs to go beyond conventional Bank practice, by defining an exit strategy with trigger points and indicators specified for this project, in view of the high risks associated with its implementation.

The table below outlines a plan to monitor the project up to the point where a mid term review will be carried out. In this case, the MTR will be done just prior to the time when the major funding component of the GEF, to establish the endowment phase of the Conservation Trust Fund, will be due. This is also about the time when most components of the project have completed initial legal and regulatory reforms, staffing and training, and also extension and training for recipients of project outputs (primarily landowners involved in the formation of new landowner units), and should be ready to proceed to scaling up of field implementation of all project components. It thus represents a convenient point at which to apply the **exit strategy** recommended by the QER. The design outline for the MTR itself is intended to provide not only a broad assessment of how well the project is progressing, but also to inform a decision by the Bank and the Government on whether to proceed with the project.

This decision will be based on three critical performance indicators:

- 1. Any evidence of significant financial or procurement mismanagement in the project;
- 2. Any failure to implement a major project component element, or to implement it at an unacceptable level of performance.
- 3. Failure to comply with loan covenants.

The reason a decision to close the project would be taken if either of these manifest is implied in the highly integrated and interdependent nature of this project, as described at various places in the main text of this document. A major failure in any component would compromise the performance and sustainability of the project as a whole, and would therefore be unacceptable. This is not to suggest that the MTR might not suggest major restructuring of the project if this is judged as being needed at the time: but there is a qualitative difference between the conditions under which that judgement would be made (for example, it may well eventuate because circumstances in the sector have altered in unanticipated ways during the course of the project) and the fundamental problems of commitment and accountability that would underlie a decision to terminate the project.

The costs of the supervision process outlined here will be high: far higher than is the norm for Bank projects. Total cost of supervision for the first 30 months after effectiveness as estimated at \$325,000 and involve 45 weeks of staff and consultants' time. At the time of writing of this document, a global review of the Bank's performance in the forests sector since issue of the Bank policy on forestry was in

progress, and the review of implementation of the policy by the Bank's Operations Evaluation Department had already concluded that one of the major reasons for the poor performance of Bank forest projects was the lack of effective supervision of implementation. Another conclusion which was beginning to emerge from the policy and implementation review process was that Bank interventions in the forests sector were likely to become more complex and less reliant on individual, stand-alone field investments, and the strong implication is that these newer forms of intervention will require more analysis of the ESW type to formulate effectively, and then more monitoring and supervision under implementation. The benefit likely to be achieved, however, is that Bank forest interventions will become much better designed, better integrated with other activities of the Bank and other donors and stakeholders, and more effective especially in delivery of the Bank's overriding goals of poverty alleviation and sustainable development. This Papua New Guinea project has many of the features which will be recommended for the Bank's new approach in the sector, and may therefore be seen as a precursor of others that may soon follow for presentation to the Board.

An effort will be made to obtain external support for the supervision and monitoring effort needed for this project, in two ways:

- 1. A search for trust fund and other sources of support which would cover the costs of consultants, workshops and other expenses will be made when the project is approved for implementation. An approach to the UNDP will be made in this regard;
- 2. The task team will seek out opportunities to combine supervision and monitoring activities for this project with thoise for programs and projects being implemented by others in PNG. The Australian aid agency, and the European Union are preparing major interventions in the sector, and have coordinated so far with the Bank in this. There may even be opportunities for joint supervision of these activities by all agencies involved, which would lead to cost savings and efficiencies: the Australian agency has expressed some interest in this idea already.

Supervision Mission	Monitorables/Focus of Mission	Expertise Required	Duration	Estimated Cost (staff/consultant time & travel etc)
1. Effectiveness review (3 months after effectiveness)	Project Management: PMU &POC operating; first AWP and budget prepared; financial management system, hardware, manuals etc in place; bids, contract for initial goods purchase completed. LDOU: LDOU: LDOU staff employed; initial TA in place; DOS strategy paper done and training for DOS under way. Conservation Trust Fund: CTF staffing complete and training under way. Sustainable Forest Management: review of FMA and operational processes initiated; forest revenue study initiated; regeneration systems assessed. Environment Assess & Monitoring: legal and policy reviews initiated; monitoring/assessment system designed.	- TTL/forest policy and economic specialist; - financial mgt and procurement specialist; - forest management specialist	3 weeks 1 week 1 week	- fares, subsistence etc: \$15 000 - staff/ consutants' time: \$23 000
2. Early implementation review (6 months after effectiveness)	Project Management: Project management and coordination operationally effective; project monitoring and reporting in place; procurement and TA recruitment satisfactory; financial management and accounting satisfactory. LDOU: DOS related activities underway; ILG legislation review initiated; strengthening GIS capacity in OEC underway. Sustainable Forest Management: establishment of plantation investment and promotion unit initiated.	- TTL; - landowner specialist; - finanical management and procurement specialist	2 weeks 1 week 1 week	- fares, subsistence etc: \$15,000 - staff/consultants' time: \$20,000

3. Early implementation review (9 months after effectiveness)	 LDOU: legislative and regulatory reforms prepared. Conservation Trust Fund: first grant proposals under implementation; endowment fundraising under way; project appraisal/monitoring capacity functioning. Sustainable Forest Management: recalculation of annual allowable cut initiated; forestry project reviews in progress; performance bond system designed. Environment Assess & Monitoring: legal and regulatory reform proposals completed 	- TTL - landowner specialist; - environment specialist;	2 weeks 1 week 1 week	- fares, subsistence etc: \$15 000 - staff/consultants' time: \$20 000
4.Implementation review and workshop (15 months after effectiveness)	 regular supervision of monitorables according to implementation plan; workshop with stakeholders, other donors etc to gain feedback on implementation, sector issues etc 	- TTL; - Forest management specialist; - local stakeholders,	2 weeks 2 weeks 1 week	- fares, susistence etc: \$8 000; - staff time, consultant fees: \$18,000; - workshop expenses etc: \$9 000

5. Pre- MTR assessment (21 months after effectiveness)	Project Management: - planning for MTR; - status of overall management and financial management. LDOU: - general functioning of unit; - education training for landowners in progress; - enabling laws/regulations to Parliament/Cabinet; best practices workshop on landowner organizations held. Conservation Trust Fund: - all legal instruments, operational manuals and processes, appraisal criteria in order.	- TTL; - legal specialist - forest management specialist	2 weeks 2 weeks 2 weeks	- fares, subsistence etc: \$20 000; - staff and consultants' time etc: \$25,000
	Sustainable Forest Management: - 15 forest operations reviewed; - environmental GIS links between OEC and FA working; - planning technology operating in FA; - new FMA system proposal to Forestry Board; - new AAC and silvicultural processes applied; - regeneration guidelines developed. Environment Assess & Monitoring: - env assessment training systems ready			
6. MID TERM REVIEW (27 months after effectiveness: just prior to disbursement of CTF endowment funds from GEF)	MTR will review performance of: - PMU; POC; LDOU MTR will audit: - procurement capacity; - financial management system; - CTF funds/disbursement; - fund mgt.; - fund-raising efforts MTR will evaluate: - condition of landowner groups and DOS process; - status of forest operations, management, monitoring and enforcement; - status of natural regeneration potential; - activities related to plantation development; - status and progress environmental assessment of forest operations; - linkage of project to other donor activities, and to local stakeholder groups	- TTL - forest sector specialist; - environmental specialist; - landowner specialist; - financial and procurement specialist; - CTF evaluation team (3 persons); - local consultants/ stakeholder participants.	3 weeks 3 weeks 2 weeks 2 weeks 9 weeks	- fares, subsistence, local travel etc: \$46,000 - staff time & consultants fees: \$72,000 - workshop and internal participant expenses: \$15 000

Additional Annex 18

Public Participation Summary

Participatory Approach The Forestry and Conservation Project by its nature will be heavily reliant upon participation by landowners, civil society groups (especially the various church groups, which are highly involved and influential in PNG) and NGOs, and progressive elements in the forest industry sector. It is expected that the project will set in train a long term set of changes in the means by which stakeholder groups become involved in the use and management of forests: in one component – the Conservation Trust Fund – longevity is actually mandated in the design of the financing arrangements, which will guarantee that this non-government facility will be capable of supporting landowner activities within its terms of reference into perpetuity.

For these reasons, the preparation phase of the project has relied heavily on participation by stakeholders – especially those in the civil society grouping – in the formulation of basic objectives and design of the project. The implementation phase of the project has very specific measures incorporated (especially within the Landowner Decision Making component) to bring broad groups of stakeholders into the implementation management and planning process: for example, a number of regional workshops, leading to a national level conference on landowner representation and decision-making issues is programmed into the implementation schedule for the project.

Consultative Process During Preparation.

- General project development consultations within PNG. Meetings and discussions on the broad objectives of the project, and the options for its implementation were held with a large number of NGO groups, landowners representatives, church groups, women's organization and other elements in civil society during the preparation of this project – many of them in multiple meetings especially throughout 1998 and 1999. In addition to consultations organized and attended by members of the bank project team, both the PNG Country Director, and the Regional Vice President for East Asia and the Pacific have had meetings with NGO groups on the project in PNG. Networks established during the operation of the Bank supported Targeted Community Development Program were utilized, to broaden the focus of groups involved beyond those conventionally associated with forest issues. Attachment 1 to this annex provides examples of this process, documenting four meetings held in November 1998: three with NGO and civil society groupings (in Port Moresby, Lae and Madang), and one with forest industry representatives. In addition to such larger meetings – of which there were about ten during the course of project preparation - the project team met with many more stakeholders on an individual and small group basis: many participants in these smaller encounters were groups who had been at the larger meetings, and were following up on more specific issues and concerns. Correspondence and a continuous dialogue with some of these groups ensued, and continues to the present.
- **Specific design consultations.** Attachment 2 to this annex lists the titles of some of the working papers prepared for the project which dealt specifically with landowner participation issues. These papers were prepared by experts with long experience in landowner affairs in PNG the major papers among these were authored by a Papua New Guinea citizen. Heavy reliance was placed on field visits and discussion with landowners in the preparation of these papers.
- The Conservation Trust Fund preparation. The Bank contracted The Nature Conservancy, an
 international environmental NGO with extensive experience in the design and management of
 conservation trust funds to design the CTF in PNG, and to manage the process of early establishment

so that it would be ready to begin utilizing GEF grant funds allocated under the project for project work with landowners. The terms of reference for TNC required major consultation with a broad group of stakeholders throughout the preparation process, and TNC has achieved this through working with a core group of national NGOs in PNG, and utilizing their networks to develop ideas and receive feedback on the nature, management and operation of the Fund. This consultation process is documented in the progress reports provided by TNC throughout the preparation. As a result, the CTF now has an initial Board, comprised primarily of NGO and other civil society representatives, and its deed, constitution and operational manual have been written, approved and disseminated widely in PNG.

• Project Consultations Outside PNG. A number of briefings and group consultations with international and regional NGO groups have been held throughout the preparation process with these groups. Greenpeace International, WWF, The Nature Conservancy, Conservation international, World resources Institute and others have met with the project team, and the PNG Country Director, on several occasions in Washington. There have been meetings on the project with these and other groups at regional level (including Australian and New Zealand NGOs) in Australia and New Zealand, attended by project team members, and the PNG Country Director.

Disclosure Within PNG. During the consultations and discussions outlined above, the project team utilized a detailed summary of the project design and components, and, with the agreement of GOPNG, distributed this widely to all groups. The environmental review was also used and distributed in the same way, when it became available in 1999.

Transparency and Consultative Process During Implementation. At the national level, the project Oversight Committee will have NGO representation on it. As a result of previous and current requirements of the Bank implemented under structural adjustment operations in PNG, the PNG Forestry Board now has NGO representation on it, and will soon be governed by regulations requiring the Board to disclose all deliberations of the Board relating to allocation of forest resources, so that civil society groupings will have timely access to this material. In addition, the Forestry Board will soon replace the forest industry representative on that board with a representative from the broader PNG private sector – either the Chamber of Commerce, or the Business Council: the intention being to expose a wider grouping of the private sector to forest sector issues, and to draw more interest from responsible members of that community in sustainable forest investment.

Within the project, there will be support for participation of landowners and civil society groupings representing their interests in all components of the project:

- extension, workshops and consultations will be supported on the central issue of landowner organization and representation in the resource use decision making area, within the Landowner Forest Decision-Making component – in fact, these are a central element of the strategy of implementation of that component;
- the Conservation Trust Fund component, as will be evident from the above and more detailed description of it elsewhere in the document, is entirely based in civil society management, and has major provisions for constant consultation and interaction with landowners and others in all aspects of its activities:
- landowners and their representatives will participate increasingly in the management and monitoring
 of ongoing and new forest operations in PNG, both through specific measures designed to include
 them in these processes introduced in the Sustainable Forest Management component, and also as
 measures improving their capacity to negotiate with industry and government agencies through the
 Landowner Forest Decision-Making component come into effect.

• specific support is provided for engagement of landowners in environmental monitoring, under the Environmental Assessment and Monitoring component;

Project Monitoring and Evaluation. As can be seen from Annex 1 to this project appraisal document, there a number of specific participation outcomes included for evaluation as key performance indicators in this project: delivery of training on the development Option Study methodology to landowner representatives; preparation and submission of legislation to simplify and strengthen the process of incorporation of landowner representative groups; achievement of effectively representative landowner organization in 20% of major forest resource project areas by mid term review, and *0% by project close; a range of specific targets relating to implementation of CTF financed landowner projects by mid term and project close; increased involvement of landowners in the Forest Management Agreement negotiation process; and achievement of at least 20 pilot community managed environmental assessment programs.

Attachment 1

EXAMPLES OF PAPUA NEW GUINEA CONSULTATIONS ON WORLD BANK FOREST & CONSERVATION PROJECT (FROM NOVEMBER 1998)

1. Port Moresby and Other NGOs

Date: 11/11/98

Venue: World Bank Office, Islander Hotel, Port Moresby

Chaired By: The World Bank

Jim Douglas, Task Manager Anita Gordon, NGO Liaison Glenn Barry, Consultant

The Meeting: This was a spirited gathering of a number of Port Moresby based and NGOs from other parts of the country including Manus and Morobe provinces, many of whom had participated in previous rounds of consultation on the forest project. The discussion dealt with some of the issues underlying the vulnerability of forests in PNG including population, agriculture.

They then talked at length about the possibilities for more sustainable forest use and alternative livelihoods that the project could help deliver. This included downstream processing that they could imagine coming out of the World Bank Forest and Conservation Project. Several people had examples of where this is already happening in PNG, i.e. the start up of local industries like furniture making; that there is real potential for this kind of industry; there is already experience through TCDP, The Targeted Community Development Program of people in Milne Bay making boats. It was suggested that the Conservation Trust Fund would be the ideal vehicle for opportunities for small scale operations. Start up capital could also be obtained through IFC which funds small scale operations. Other participants saw the possibility of marketing PNG eco-labeled timber in the West; Church representatives saw the real possibility of spreading the sustainability message through the pulpit – a Church lesson in "real stewardship".

Other Issues Raised on the Project:

- **Small Scale Logging** that this not be stressed as an answer to large scale logging as it could be just as destructive.
- **Moratorium on Logging** that this is needed if the project is to work.
- **Options -** they should be the priority; people should know what options are available.
- The Need for Capacity Building that this would be a critical element in the success of the project.

PARTICIPANTS

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2. Forest Industries:

Date: 11/10/98

Venue: PNG Forest Authority Boardroom Chair: PNG Forest Authority

World Bank: Jim Douglas, Task Manager_

Anita Gordon, NGO Liaison Paul Ryan, Consultant

The Meeting: This was an opportunity to meet with representatives of the Forest Industry Association (FIA) and a number of other industry people, as well as a number of others involved in forest projects, and forest research in PNG. Jim Douglas explained the Bank's involvement in the forest issue, and said that in terms of the Bank's Forest and Conservation Project, he would be looking to work with industry on this, to get their support. He made it clear that the forest program was looking to the future, a future in which forests would play a much different role than

now. He cited carbon offset as an example, saying that if it were to happen, it would revolutionize forest use and forest economy.

The FIA presented highlights from a paper – "Draft Comments on the World Bank Forestry and Conservation Project", which was as much a litany of complaints about what the FIA considers the Bank's pressure on them as a critique of the Project. The FIA representative raised a number of concerns including: that the move to "independent audit" meant sidelining the NFB and NFS; that the project summary maligns industry by suggesting it doesn't play ball. (Jim Douglas said he would remove that reference in the document); that although small scale use and forest development is fine, would it be sustainable once the original funds run out; although log export accounts for the bulk of forest activity, shouldn't ignore growing processing sector, and industry investment in reforestation; that Bank's moves (VAT and processing tax) adversely affected any future growth in those sectors. One participant said that the forest industry has taken a lot out of PNG and hasn't put a lot back in; and also pointed out when TNC wanted to join the FIA, the organization refused them membership. The World Bank team reiterated that it very much wanted industry to be on board vis-a-vis the Project.

Other Issues Raised on the Project:

- **Role of NGOs** need more detail on how NGOs would be involved; should be a review of NGO capacity and the ability to build capacity; a problem that few conservation NGOs left in PNG.
- The Need to Build a Climate of Trust in PNG. The project document doesn't tell how this is going to happen.
- The Development Options Study is the most important element of the project; if carbon offset becomes a reality, this would be really big; would like to see the development options study enlarged and emphasized more.
- **ILG's** (**Incorporated Land Groups**) Problem will be identifying legitimate ones; also may not make sense to work with small groups, small ILG's; should work with larger groupings.

PARTICIPANTS

NAME	AFFILIATION	CONTACT
Wep Kanawi	TNC	
Martin Golman	PNGFA	
Colin Filer	NRI	
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Jim Douglas	World Bank	
Bob Tate	FIA	
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Peter McCrea	PNGFA	

3. Morobe Province NGOs and Other Groups

Date: 11/12/98

Venue: Lae International Hotel, Lae, Morobe Province

Chair: Village Development Trust - VDT

World Bank: Anita Gordon, NGO Liaison

Paul Ryan, Consultant

TNC: Wep Kanawi, PNG Coordinator

The Meeting: Lae has the strongest and most active focal point of civil society in Papua New Guinea. The Morobe Kibung is made up of representatives of universities and schools, NGOs, business leaders, women's groups, community council leaders, professionals, service clubs and others. After introductions, the Bank team described why the Bank got involved with the program – the Bank's mandate for poverty reduction, natural resource management; in PNG the World Bank had always worked at the macro level on forest issues; there was now understanding that change must also happen at the local level as well if it is to be effective. Wep Kanawi of The Nature Conservancy described the Conservation Trust Fund in pigin and with descriptive drawings and diagrams.

The greatest concern that emerged from the gathering was that the entire Bank project with the trust fund, not become another "cargo" grab; that people would get something for nothing without stringent criteria attached; that it would simply become a free-for-all. Both Bank and TNC made clear that this would not be the case. This was not going to move faster than it was able to cope; that there would be strong criteria for access to the trust fund; but on the other hand it wouldn't be so difficult that it would run the risk of becoming paralyzed.

A number of questions were raised about the government funded poverty alleviation program, the Targeted Community Development Program (TCDP) and how it could interact with the Bank Forest and Conservation Project. It was decided by the Bank team after this meeting to invite Jean Kekeo, the consultant heading the TCDP to attend the next consultation meeting in Madang.

Other Issues Raised on the Project:

- **Independence of the Trust Fund** concern that the trust fund be independent of government control.
- **Tranparency** that criteria be clear to those NGOs and community groups working with the project so that they don't mislead their constituents.
- Capacity that before any money goes to anyone capacity be enhanced to deal with such projects.
- Lack of Conservation Ethic in PNG the need for environmental education in schools to make something like the Bank project work.

PARTICIPANTS

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4. Madang Province NGOs and Others.

Date: 11/16/98

TNC:

Venue: Madang Resort Hotel

Chair: Ivan Mullel, Madang Provincial Government

World Bank: Anita Gordon, NGO Liaision Glenn Barry, Consultant

Wep Kanawi, PNG Coordinator

TCDP: Jean Kekedo, Consultant

The Meeting: The meeting was organized with the assistance of Ivan Mullel of the Madang provincial government. This is an area that has seen some of the worst forest degradation in Papua New Guinea, so there was keen interest in a program which offered alternatives for livelihood that were alternatives to losing their forests. Numbering almost 60 people, the group was made up of a broad range of government representatives (mainly forestry and community workers), NGOs, community council presidents, women's

groups, and other members of civil society including people who described themselves as "grassroots". After people introduced themselves, Bank representatives described the project and Wep Kanawi of TNC described the Trust Fund, how it would work and how it fit into the greater project context.

As in the previous consultative meetings in Port Moresby and Lae, there was greater interest in the Trust Fund and how it would work than in the rest of the Bank project. The majority of the questions centered on the Trust Fund – how it would operate; who would be eligible; would it be free of government interference; how easy would it be to understand the rules of the game. They made it clear that they simply wanted to improve their lives; that they had heard enough talking over months and years on "awareness" and wanted to see the cold hard cash that they could use to improve their quality of life. They specifically wanted to know how soon they would see this project happen. There were a number of technical questions in terms of asset/fund management, operations manual, shareholding, government policies linking the CTF programs to priority needs etc.

Provincial forestry officials were not entirely sure how the overall project was going to affect or improve their capacity to perform their duties on the ground. Great care was taken to explain the design and operation of the project and CTF in pigin, using illustrative drawings and diagrams.

Other Issues Raised on the Project:

- The Need to Improve Lives There was a desire to see this as a vehicle to improve the lives in rural communities rather than structural or other improvements.
- **A Voice on the Board** Participants stressed the need for a strong community development and awareness voice on the Board of the CTF.
- **Potential Conflict of Interest of Board Members -** The issue of possible conflict of interest in Board members being associated with NGOs which would seek funding from the CTF was raised by quite a few people. The record was set straight on this and it appears to have been accepted.
- **Possible Government Interference** How would the money in the Trust Fund be protected so it wasn't grabbed by government.
- The Need for Simple Language Any application and criteria and descriptions should be in simple English or pigin.
- Incorporated Land Groups (ILGs) That Aren't Authentic What can be done? this theme ran through all the meetings held.

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Attachment 2

PROJECT WORKING PAPERS INVOLVING MAJOR CONSULTATION WITH LANDOWNERS AND OTHER STAKEHOLDERS

1. SOME ISSUES OF LAW AND POLICY RELATING TO LANDOWNER ORGANISATION AND REPRESENTATION MECHANISMS

Kathy Whimp, Legal Consultant, September 1998

2. LANDOWNER FOREST DECISION-MAKING COMPONENT REPORT

Hartmut Holzknecht, Landowner Specialist, 1998

3. WORKING PLANS ON CLAN BASED PARTICIPATION, CONSERVATION AND LANDOWNER GROUPS

Hartmut Holzknecht, Landowner Specialist, 1999

Additional Annex 19

Project Financial Management A. FINANCIAL MANAGEMENT SYSTEM

Organization, Management and Internal Control Structure

The project would be overseen by a Project Oversight Committee comprising representatives of government agencies, NGOs, and commercial interests involved in landowner and conservation activities associated with the Project. A Project Manager would lead a small team in a Project Management Unit (PMU, reporting operationally to the Project Committee. The Project would be implemented by two existing agencies, and three bodies to be established. The existing agencies are the Forest Authority (FA) and the Office of Environment and Conservation (OEC). The new bodies are the Conservation Trust Fund (CTF), the Landowner Decision and Organization Unit (LDOU), and the PMU. The CTF would be

established by trust deed as described in a second section of this Annex. LDOU would be established as a

The PMU, working cooperatively with the implementing agencies, would be directly responsible for four areas of project financial management:

- (a) overall planning and budgeting;
- (b) procurement and contract management;
- (c) payments, management of Bank accounts, and disbursements, and
- (d) accounting and financial reporting for the project.

team of mainly consultants, reporting operationally to the Project Manager in the PMU.

The PMU would thus provide a service to the Implementing Agencies, enabling them to concentrate upon the technical management of their components, the provision of work plans and budgets to the PMU for incorporation in the project budgets, and the certification of payments due under contracts. The situation for the CTF activities would be handled somewhat differently, as described in the next paragraph.

In the case of the CTF component, the role of the PMU would rapidly phase out. For *establishment* activities – procurement of works, goods, and technical assistance – the PMU would provide the full range of support to the CTF in the four financial management areas mentioned above. It would provide information to the CTF so that the CTF could maintain its own records correctly. For *commencement* activities – including the initial grant program – CTF would take on the primary responsibility in the four financial management areas mentioned. CTF would report expenditures and the use of GEF funds to the PMU in order that the PMU could incorporate the commencement activities in the reports on the overall project situation and the project financial statements. Finally, the CTF would be fully responsible for the *endowment* activities including planning and reporting. The role of the PMU would be simply to record the endowment in the project financial statements. The investments made from endowment funds, and the grants financed from the investment income, would be recorded by the CTF, and reported in financial statements issued by CTF.

Assessment of financial management capacity of the existing implementing agencies.

During preparation and appraisal, an assessment was made of the accounting and auditing practices and internal control arrangements within the two existing implementing agencies (OEC and FA). This assessment commenced with a review of the Public Finances (Management) Act 1995, which governs

the management of public finances within Papua New Guinea. The Act provides procedures and responsibilities for financial management and for keeping the Public Account on a cash receipts and expenditures basis. It also provides for compilation of the National Budget, and budgetary control including the system of annual appropriations by Parliament for approved expenditures. Finally it sets out the rules for making payments, and for tenders and contracts. Under the Act, the Secretary of the Treasury has issued Finance Instruction 7/97, which gives procedures concerning the financial management of donor-funded projects. This Instruction deals amongst other things with the establishment of counterpart trust fund bank accounts for government contributions to projects, and for IBRD special accounts, both of which must be controlled by at least two signatories. It also deals with the requirements for accounting for expenditures.

With pressures upon cash availability, and the devolution of responsibilities to provincial governments, the procedures laid down by the Act and associated Finance Instructions have come under increasing pressure in recent years. One particular concern has been the multiplication of the number of trust bank accounts, both those associated with foreign-assisted projects and others. Supervision of these accounts has been weak and there are concerns as to the aggregate level of the accounts, and their retention for use from one fiscal year to another. The Asian Development Bank and AusAID are supporting a major project for effecting improvements in the systems supporting the management of public finances at all levels of government. These improvements are likely to yield their results over a period of some years. In the meantime, some agencies are experiencing difficulty in complying with all the provisions of the legislation, and reporting in a timely fashion.

The **Office of Environment and Conservation** is required to follow the provisions of the Public Finances (Management) Act. A consultant prepared a financial management manual for OEC in 1998. This draft manual is currently being reviewed, under the leadership of the Director and the Internal Auditor, for adoption in 2000. It provides detailed procedures for accounting for revenues, for authorizing expenditures, for government financed procurement, including rules for internal and overseas travel, for air charters, for computer equipment and software, for consulting services, vehicles and other equipment, plant and transport hire, and airline tickets. It also provides rules for cash management, for management of advances and trust accounts, the keeping of an asset register, and comments on issues related to portable equipment and disposal of vehicles. It does not provide at present for the maintenance of vehicle log books. The manual also deals with rules for personnel, including casual employees, overtime, allowances, and leave. When introduced, it should enable the Office to upgrade its financial management procedures, provided staff are available for implementation. However, the Office was required to reduce its staff levels considerably in 2000, and thus there is some risk that implementation of the new procedures might suffer.

The Forest Authority was created by Act of Parliament in 1991, and took over the assets of the Department of Forests. Until January 1993, it maintained traditional government accounts, and then commenced the process of establishing a balance sheet to incorporate the assets taken over from the former Department, including a plantation. FA's expenditures are included in the national budget, and it receives quarterly allocations of cash from the Treasury, which is kept in separate bank accounts and used for appropriated expenditures. The Authority also receives fee revenue, which it pays over to other bodies as specified by legislation or agreements, or to the Public Account. Its organizational structure separates procurement and contract management from the payment and accounting functions, but a formal financial management manual does not exist. Its chart of accounts is geared to a substantial amount of analysis by expense categories, organizational unit, and location throughout the country, but does not include an ability to report in terms of the national budget headings. There is no fixed asset register nor vehicle log books. The Authority maintains management accounts which are presented to its Board.

The valuation of assets such as vehicles, buildings, and plantations has not yet been completed. The Auditor-General's opinion for 1993 reported this situation, together with some other factors. The accounts for 1994 are currently being audited, but will also have an asset valuation problem. The accounts for 1995 are in draft form, ready for audit review, and the intention is then to proceed to each subsequent year in turn. Until valuation of all assets is completed, audit opinions are likely to carry a disclaimer or qualification. FA has included in its FY2000 budget submission a sum of PGK 45,000 (US\$15,000) to employ a chartered accounting firm to assist in bringing the accounts up to date from 1996, and to assist in preparation of a Finance Procedural Manual. The Government will be asked at negotiations to commit the FA to carry out these actions, with a view to having a Finance Procedural Manual in place, and audited accounts for each year available in the following year.

Separately, the Chairman of the National Forest Board is employing an international accounting firm to investigate the FA accounts and records for the period since January 1, 1994. The firm is to report to the National Forest Board on why the Auditor has not completed audits for the years 1994 to 1998; whether the FA management accounts for these years accurately reflect its financial position; whether there has been any misuse of trust or grant funds; and whether capital allocations have been used for revenue purposes.

In relation to externally-funded projects, the Stabex funded Log Export Monitoring Program managed by FA, valued at PGK 9.5 million (about US\$3.2 million) has received a draft clean audit opinion dated October 18, 1999, from an international accounting firm.

The project objectives are dependent upon the technical strengths, rather than the financial management capabilities of OEC and FA. The project design places project financial management with an independent PMU, which is to become familiar with the special requirements of an internationally assisted project, including procurement and management of loan funds. The financial role of OEC and FA in connection with the Project would be confined to expenditures for small payments for some provincial activities unsuitable for payments directly from the PMU. Advances to OEC and FA for this purpose will be made from GOPNG counterpart funds. As described in the next section, the PMU capability to undertake its financial management role is to be established under an action program. There is judged to be no undue control risk in relying upon OEC and FA for the restricted financial role they are to undertake under the Project

Program of Action to establish adequate Project Financial Management Capacity (other than CTF).

Given the above situation, Government has agreed that an adequately staffed Project Management Unit would be created, with the functions discussed earlier, to assure implementation support, and an adequate financial management capacity for the Project. As noted earlier, this Unit would be responsible for budgeting, contracting, payments accounting, disbursements and control of bank accounts, but not for implementation of the main project activities. The financial management burden upon the Forestry Authority and OEC would thereby be kept to a minimum. They would certify payments and managing small advances. Despite the weaknesses mentioned, their capacity to undertake these restricted financial responsibilities is considered adequate.

A program of action was commenced during preparation to ensure that that the PMU would be able to promptly establish an adequate financial management system. This program of action is phased in order to cover the four financial management areas mentioned in para. 2 above.

The first stage of this program is already well under way, with the objective of equipping the PMU

with a tool to rapidly establish the required financial management systems for the Project. A firm has been contracted, using funds provided by Japan, to establish a computerized system. This system would integrate project management, contract and procurement management, disbursements and cash flow management, general ledger accounting, and required reporting to the Project Oversight Committee, GoPNG, the Bank and GEF. In addition, the system would support preparation of annual budgets to GoPNG and reimbursement claims and/or Special Account reconciliations to the Bank so as to facilitate the timely flow of funds. All procurement and contract expenditures (in various currencies and at varying exchange rates) and monitorable outputs are to be linked to financing sources, and cash flow forecasts would be generated for Bank and GEF financing, as well as for counterpart requirements.

The system would from the outset produce Project Management Reports (PMR) in accordance with the Bank's recommended formats for expenditures (1-A and 1-B), and procurement and contractual payments (3-A to 3-D), together with Special Account reconciliation reports, listings of expenditures for disbursement applications, and reports of achieved contract deliverables and related payments. The system would be capable of generating cash management reports in the Bank-recommended formats 1-D, 1-E, and 1-F required for PMR-based disbursements. The system's specification has been reviewed and approved by the Bank, and would be implemented under a program under which a project specific version would firstly be installed at the Second Gazelle Restoration Project, and a second project specific version would subsequently be installed at the Forestry and Conservation Project.

The second stage of the action program would introduce the first two areas of the project financial management agenda: planning and budgeting, and initial procurement. This stage would be undertaken by the Project Manager and the Project Procurement Adviser. The Project Manager would be in place prior to negotiation date, and would recruit the Project Procurement Advisor, and the Project Accountant, with the objective of their being in post prior to Board approval date. The responsibility for the positions, and Government prefinancing of some start up costs to be financed retroactively were discussed during appraisal.

In order to support the PMU in its task of establishing the financial management system, the project provides funds for computer purchase, software training and support, employment of a qualified accountant and experienced procurement officer, and ongoing monthly support from a local accounting consulting firm. The third stage of the action program would be for an accounting consulting firm to be recruited to produce a financial procedures manual consistent with the computer system specification, covering the organization structural, responsibilities, separation of duties, procurement, custody of assets etc. The firm would review the procedure manual of OEC as a basis for adoption or modification by the Project if judged desirable. It would also conduct training, scheduled for the first quarter of 2001, in the procedures for staff at all levels, including managers, of the PMU, and coordinators and selected staff in the Implementing Agencies.

Upon completion of this training, the computer system would be installed in January 2001 (initial hardware having been purchased under local shopping), and staff would be trained in its use. The objective would be for the first set of PMRs, including schedules to support disbursements under traditional Bank procedures, for the period to December 31, 2001. By December 31, 2001, a review will be conducted to determine the feasibility of adopting the PMR – based disbursement procedures. The project provides continuing support by an accounting firm, of about one month a year or about two days a month, to help ensure that financial procedures operate and end-of-month financial management reports are prepared as planned.

Accounting Principles and Audit: The PMU would maintain the project accounts on a cash

receipts and expenditures basis, but would also maintain records of contractual claims not yet paid, and of the contingent liabilities outstanding under contracts. In addition, it would maintain records of project assets. Special purpose project financial statements, in a format acceptable to the Bank, would be prepared for the information of the Government, the Bank and GEF, which would summarize receipts and expenditures and cash balances, and the situation of disbursements and the Special Accounts. These accounts would be audited by an independent auditor acceptable to the Bank, and the audited statements will be furnished to the Bank within six months of the close of the financial year. The audit opinion would incorporate separate opinions on expenditures and the Special Accounts.

Concurrent with the actions discussed earlier, forward planning for audit would take place. The project manager would contact the the Auditor General and the selected independent auditor, with a view to having the internal control procedures contained in the financial procedures manual reviewed at an early stage, as a separate exercise prior to the first audit. The project manager would also seek to establish with the independent auditor and the Auditor General a timetable for audit work to be conducted by the independent auditor. The format of the required annual project financial statements, together with details of the Bank's requirements for audit, would be provided to the Government during negotiations.

Summary Action Plan: The above actions are summarized in the table below:

Project Financial Management Highlights

Action	Responsible Agency	Date
I. Preliminary		
1. Approval of Specification for Computerized System	Bank	30-Nov-1999
II. Organization and staffing		
(a) Appointment of Project Oversight Committee	GOPNG (DPM)	15 Sept -2000
(a) Appointment of Project Manager	GOPNG/DPM	15 Sept-2000
(b) Project Management Unit	GOPNG/PM	16 Nov -2000
(c) Appointment of Project Accountant	PM/GOPNG	16 Nov-2000
(d) Appointment of Procurement Specialist	PM/GOPNG	16 Nov-2000
III. Internal Control and Accounting Procedures for PMU and LDOU		
(a) Appointment of accounting consulting firm to provide end-of - month support and develop a financial procedures manual for the Project, reflecting the computerized system as necessary, and setting out responsibilities and, procedures for procurement, contracting, authorizing expenditures, payments, cash management, the custody and registration of assets, vehicle log books, and rules for personnel, and payroll procedures.	PMU (to be hired)	28 Feb-2001
(b) Training in financial procedures	Accounting consultants (to be hired)	12 March-2001
(c) Install computerized procedures and train staff	Grange Consultants	Jan 31-2001
(d) Arrange for the auditors to review the financial procedures manual and internal controls prior to the first audit.	PMU	30-Nov 2001
IV. Operations		
(e) Produce first set of PMRs, for period to 31 Mar-2001	PMU	28 Feb-2001
V: Audit		
(f) Conduct a review to determine feasibility of adopting PMR – based disbursement procedures	PMU	31 Dec 2001
(g) Discuss project requirements with AGO and the Independent Audit firm	PMU	30-Nov-2001
(h) Independent accounting firm (or AGO) to review financial procedures and internal control	Independent auditor	31-Jan-2002
(i) First statements available for audit	PMU	28-Feb-2002
(j) Audit complete		

B. THE CONSERVATION TRUST FUND and its Financial Management Arrangements

This section firstly paraphrases the draft documents that would set up the Conservation Trust Fund. It then gives a brief initial assessment of how they impact upon the proposed Project, and indicates the next steps to be undertaken at part of an Action Plan to complete project preparation. It then considers the documents from the point of view of financial management, and outlines further steps that would need to form part of the initial work program for the establishment phase of the CTF.

The Draft Trust Deed

The Papua New Guinea Conservation Trust Fund (CTF) is to be established by a trust deed to be executed between the Nature Conservancy (the Settlor) and Papua New Guinea Conservation Trust Fund Limited (the Trustee Company - TC). The Nature Conservancy is to settle a nominal sum of PGK 1,000 on the TC, to hold on trust on the terms of the trust deed. The draft trust deed provides that the primary purpose of the CTF is to exclusively operate for charitable, scientific and education, and to provide financial support for conservation-oriented projects and activities. The CTF is to consist of the initial settled sum, donations given to the TC to be paid into the CTF, and income or property from investments. The TC must seek to ensure that the Fund is recognized as a charitable trust fund under PNG and other tax laws.

The TC must adopt an investment policy with investment guidelines and review it every twelve months. Investments are to be consistent with the policy, unless the terms of a Donation Agreement require otherwise. The TC must engage one or more asset managers with expertise in investments in the domestic and international markets, who will help prepare and review the investment guidelines, advise the TC on investments, and make investments on behalf of the TC.

The CTF is to be spent on supporting Conservation-oriented projects and in meeting liabilities and expenses. Other than required otherwise by specific terms of a Donation Arrangement, support can be by way of grant without or without conditions, by direct or indirect investment, by loans with or without security, and providing resources, guarantees, or other financial support.

The TC is to adopt a program and program budget for each financial year, setting out the kinds of projects and activities to be supported during the year, estimates of income and expenditure, and allocation for each kind of project or activity.

The TC must as soon as practicable, adopt a Fund Operations Manual (FOM), setting out amongst other things, (a) procedures for handling donations, for assessing donation proposal, and a fund seeking strategy; (b) the criteria for selecting fund managers and other expert advisers; (c) the *spending rule* concerning the proportion of fund income available for expenditure; (d) the investment strategy, and (e) a number of other operating policies and procedures, including independent audit, and the organizational structure. (A draft Manual has been prepared and needs to be reviewed and cleared by the Bank)

The TC must each year cause to be conducted a review of its operations by a qualified person, and each third year by an independent person to ensure conformity to the Trust Deed and appropriate CTF governance. Project must be monitored, and stakeholders involved, as far as practicable, in an open transparent and accessible way. A Stakeholder General Assembly is to be held annually, accounts are to be kept and audited, and an annual report provided to stakeholders within six months of the end of the financial year. Corrupt practices are forbidden, and conflicts of interest are defined, and declared. The Settlor may remove and replace the Trustee Company, agree to proposed amendments to the trust deed, and terminate the Fund. In this event, after paying expenses and liabilities, donations are to be returned as entitled by donation arrangements, and any surplus distributed to other similar bodies with similar

objectives to the CTF.

The Draft Trust Company Constitution

The draft constitution of the TC is the document required for the purpose of registration of the TC under the PNG Companies Act 1997. The TC is to have one ordinary share, nine directors, initially those selected by the Settlor, who must be resident in PNG, but not an elected member of parliament, provincial assembly, or local level government, a public servant, or a constitutional office holder. The restriction on the eligibility of public servants appears to be at variance with Appendix A of the draft trust deed, and clarification of this would be sought by the Bank, prior to approval of the draft documents. Remuneration of Directors is to be fixed by the Board at amounts consistent with practices for voluntary service to charitable organizations. The constitution also sets out detailed rules prohibiting loans to directors, defining directors' material interests and duties, board powers, meetings, and proceedings. It also provides that the Board must adopt a Funds Operations Manual as required by the Trust Deed.

The Draft Operations Manual

The draft Operations Manual is an elaborate document, setting out detailed rules and procedures. Separate board committees cover finance/investment, grants, development (fund raising), and nominating (of directors). Organizationally, under the Executive Secretariat, are the financial service, the grant program service, and the support service.

Detailed provisions cover: (i) the CTF organizational structure, (ii) the reception and handling of donations, (iii) administration and financial management, procurement policy, accounts receivable and payable, travel policy, other operating procedures, and rules regarding employees; (iv) investment policy, (v) grant program policies and procedures, including monitoring and evaluation, and formats for submitting grant proposals.

Initial Assessment and Next Steps

The draft Trust Deed and Constitution were prepared by a large law firm, and the Operations Manual by the CTF Advisor. A brief initial assessment indicates that the documents are well prepared and comprehensive.

The introduction of the section on the reception and handling of donations acknowledges the GEF Grant that is part of the proposed Project, and notes that it consists of both a Sinking Fund element of US\$5 million and an Endowment Donation of US\$10 million. An *advised sinking fund* may be used for both CTF establishment expenses and the grant program, as set out in the agreement with the donor, in this case GEF. An *advised endowment fund* provides that the earnings from the endowment would be used for specific purposes and areas linked to the mission of the CTF and determined by the donor. The understandings between GEF and the PNG CTF, which would also reflect some detailed provisions recommended during appraisal, would be set out in a Project Agreement to be discussed at negotiations. These detailed may differ somewhat from the general wording in para. 12 of the present draft Fund Operations Manual, which may need to be amended slightly.

The documents would need to be reviewed by Bank legal and financial staff, preferably before they are executed. This would enable the Bank to confirm that the documents are satisfactory to the Bank and GEF as a basis for proceeding with the Project and the proposed GEF endowment. Subsequently, and prior to negotiations, the Bank would need to receive a conformed copy of the signed Trust Deed and

Constitution, and of the Operations Manual, together with a certified copy of the Board resolution adopting it.

Financial Management of the Fund

Subject to the review by the Bank legal and financial staff, the draft trust deed, constitution, and fund operations manual would provide a sound base for the implementation of detailed financial management, including procurement and accounting systems, by CTF. As an institution yet to be created, these systems are not yet in place, and their establishment and implementation forms an important part of the Commencement Activities sub-component of the Conservation Trust Fund component.

Under this sub-component, the PMU will provide financial management support to CTF during the Establishment phase. The structure of CTF will be fully developed by negotiation date. This will include: i) clearly defining the timetable for the Establishment and Commencement phases of the CTF; ii) appointment of CTF board members in a transparent process; and iii) recruitment of the CTF advisor. In subsequent appointment rounds, steps will be taken to enhance independence of the CTF board by considering inclusion of additional members, such as Transparency International, Attorney General Office, NGOs, and a reputable private/law firm. An independent mechanism will be established to provide on-going monitoring of the use of CTF fund, consistent with its constitution. This could include establishment of an independent three-member audit committee of the CTF board, with two outside members. The work of the committee will be assisted by an independent accounting firm, which would conduct quarterly review on the use of CTF funds. An arrangement will be made for the annual audit of the CTF by an independent accounting firm acceptable to the Bank.

Summary Action Plan for the Conservation Trust Fund: the critical actions to mobilize and manage the Conservation Trust Fund through the first year or so of its operation as discussed above are as follows:

Key Actions Related to the Conservation Trust Fund

Action	Agency	Date
I. Legal		
(a) Submit draft trust deed, constitution and operations manual to Bank for review		Completed
(b) Bank comments	Bank	31 March 2000
(c) Register trust company	CTF	31 March 2000
(d) Sign trust deed	CTF	31 March 2000
(e) Send conformed copies to Bank	CTF	31 March 2000
(f) Board to adopt Operations Manual	CTF	31 March 2000
II. Organization and Staffing		
(g) Recruit CTF Advisor	PMU	Completed
(h) Recruit other staff	CTF Advisor	Jan 1 2001
III. Operational		
(i) Undertake establishment phase	PMU/CTF Advisor	31 March 2001
(j) Undertake commence activities	CTF	30 Sept 2001
IV. Audit		
Arrange for audit so that audited accounts as at 31-Dec-2000 reach stakeholders including Bank by 30-Apr-2002	CTF	30 Sep 2001

Accounting Principles and Audit

The CTF would maintain its accounts on a cash receipts and expenditures basis. Under the draft Trust Deed, the CTF Annual Financial Report must be audited by independent auditors, and made available to stakeholders within six months of the end of a fiscal year. It would be agreed at negotiations that the Bank and GEF would receive a copy of this report within this time frame.