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(TF-28301)

ON A

GRANT FROM THE
GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN THE AMOUNT OF SDR 12 MILLION (US$ 17.90 MILLION EQUIVALENT)

TO

THE PEOPLE'S REPUBLIC OF CHINA

FOR A

NATURE RESERVES MANAGEMENT PROJECT

NOVEMBER 20, 2002

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

CURRENCY EQUIVALENTS

(Exchange Rate Effective September 3, 2002)

Currency Unit	=	Chinese Yuan
Y8.30	=	US$ 1.00
US$ 1.00	=	Y0.12

FISCAL YEAR

January 1 December 31

ABBREVIATIONS AND ACRONYMS

BIMS	Biodiversity Information Management System
CBIMS	China's Biodiversity Information Management System
CCE	Community Conservation Education
CIG	Community Investment Grant
CNRMP	China Nature Reserves Management Project
CNY	Chinese Yuan
DNR	Division of Nature Reserves
DWC	Department of Wildlife Conservation
GEF	Global Environment Fund
GIS	Global Identification System
ICR	Implementation Completion Report
MIS	Management Information System
NFPP	National Forest Protection Program
NFRSP	National Forest Reserve System Plan
NGO	Non-government Organization
NR	Nature Reserves
ONR	Office of Nature Reserves
PFD	Provincial Forestry Department
PMC	Project Management Center
PRA	Participatory Rural Appraisal
SFA	State Forestry Administration
SRG	Small Research Grants
TA	Technical Assistance
WCD	Wildlife Conservation Department
WHCNS	World Heritage Cultural and Natural Site
YPFD	Forestry Department in Yunan Province

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CHINA
NATURE RESERVES MANAGEMENT PROJECT

CONTENTS

Project ID: P003402	*Project Name:* NATURE RESERVES MANAGEMENT PROJECT
Team Leader: Susan S. Shen	*TL Unit:* EASES
ICR Type: Core ICR	*Report Date: November 20, 2002*

1. Project Data

Name: NATURE RESERVES MANAGEMENT PROJECT *L/C/TF Number:* TF-28301

Country/Department: CHINA *Region:* East Asia and Pacific Region

Sector/subsector: Central government administration (62%); Forestry (35%); Other social services (3%)

KEY DATES

			Original	*Revised/Actual*
PCD:	10/01/1993	*Effective:*	07/18/1995	07/18/1995
Appraisal:	03/01/1995	*MTR:*	09/20/1998	09/20/1998
Approval:	06/06/1995	*Closing:*	06/30/2002	06/30/2002

Borrower/Implementing Agency: PRC/MINISTRY OF FORESTRY

Other Partners:

STAFF	Current	At Appraisal
Vice President:	Jemal-ud-din Kassum	Russell J. Cheetham
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2. Principal Performance Ratings

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely, HU=Highly Unsatisfactory, H=High, SU=Substantial, M=Modest, N=Negligible)

Outcome: HS

Sustainability: L

Institutional Development Impact: H

Bank Performance: HS

Borrower Performance: HS

	QAG (if available)	ICR
Quality at Entry:		S
Project at Risk at Any Time:	No	

3. Assessment of Development Objective and Design, and of Quality at Entry

3.1 Original Objective:

The project's major objective was to better conserve the biodiversity and improve the environmental condition of nine A-level Chinese Nature Reserves (NRs) that are national biodiversity conservation priorities and of global biodiversity significance. It sought to achieve these objectives by enhancing the biodiversity and environmental management capacity and techniques of the staff of the nine NRs, their parent provincial forestry departments, and of the (national) State Forestry Administration's (SFA) Department of Wildlife Conservation (DWC). The specific NR capacity-building and management activities it supported were: (a) staff training and skill development at the nature reserve, provincial and national levels; (b) introduction of international good-practice approaches to nature reserve management planning and adaptive research; (c) establishment of advanced biodiversity and environmental data gathering and management systems; and (d) involvement of pilot local communities in nature reserve co-management and enhancement of their living standards in biodiversity-friendly ways. These activities were collectively intended to address the major constraints to more effective nature reserve management, which were judged to be inadequate staff skills, weak nature reserve planning and management systems; ineffective field-level protection activities; environmental conflicts with neighboring communities; and a NR resource allocation system biased towards infrastructure development and high staffing levels at the expense of staff training and on-the-ground environmental and biodiversity conservation activity.

A secondary project objective was to significantly scale-back the activities of a forest enterprise (logging and wood processing company) that was operating in an area adjacent to a group of the target nature reserves (and was threatening their biodiversity), and to test and compare alternative mechanisms for re-deploying about two-thirds of its work-force, while preserving their living standards.

3.2 Revised Objective:

The original objectives were not revised.

3.3 Original Components:

The original project design sought to achieve the above objectives through the following five components:

The Nature Reserves Component (34 percent of total costs) aimed to upgrade the management of nine nature reserves of global biodiversity significance that are identified in China's Biodiversity Action Plan as top national conservation priorities. The nine reserves are clustered in five areas: Xishuangbanna, a cluster of five sub-reserves in southwest Yunnan Province; Poyang Lake, China's most important wetland site in Jiangxi Province; Wuyishan, the highest and biologically richest peak in southeast China, straddling the borders of Fujian and Jiangxi Provinces; the Qinling mountains in Shaanxi Province, consisting of five reserves (Foping, Niubeiliang, Zhouzhi, Changqing and Taibaishan) and their surrounding natural forest areas where healthy populations of giant pandas still reside; and Shennongiia, an area of very rich pristine forest in Hubei Province. The key activities undertaken at these nature reserves were: (a) preparation and implementation of new NR management plans; (b) strengthening of field-level protection through financing of guard posts, communications systems, field kits and other miscellaneous equipment; (c) establishment of a wildlife corridor linking two core areas of the Wuyishan Nature Reserve. This component also supported the preparation of a National Forestry Reserve System Plan (NFRSP).

A pilot community nature reserve co-management sub-component, implemented at six of the reserves, was designed to strengthen community incentives for conservation and long-term sustainable use of biodiversity resources. It supported four activities: (1) Community briefing on the scope and benefits of co-management and solicitation of community participation in the process. (2) Training for NR staff in Participatory Rural Appraisal (PRA) techniques and conservation advocacy skills. (3) Formation of stakeholder committees at each reserve to help NR staff conduct PRAs, collect and analyze data on resource use, and identify and rank community problems with the NR and options to alleviate them. (4) Preparation by stakeholder committees and NR staff of Community Resource Management Plans and Co-Management Contracts that identified the roles and responsibilities of NR staff and communities in managing the reserves. The project then supported the implementation of these plans and contracts through: (a) a new community investment grant program to support non-consumptive economic activities consistent with sustainable resource use; (b) community-oriented education programs to increase their awareness of the NRs' conservation objectives and benefits; and (c) NR community outreach programs, such as summer nature camps; and (d) detailed monitoring and evaluation to promote equitable and effective implementation and to facilitate adjustments over the life of the project .

The Enterprise Restructuring Component (34 percent of total costs) had two objectives: (1) reduce biodiversity/forestry conflicts in an area adjacent to the Qinling Reserve Group by scaling-back commercial logging in the area; and (2) test alternative mechanisms for relocating workers displaced by forest enterprise down-sizing or closure.

It targeted two state-owned forest farms under the Changqing Forestry Bureau that were aggressively harvesting timber close to the Qinling reserve boundaries, which had significantly reduced the area's forest cover and degraded a small, but important, Giant Panda corridor. The component supported a significant reduction in tree harvesting, transfer of most of the Forest Bureau's workers to more environmentally sustainable employment, and more effective conservation of the area. It was also hoped that this pilot forest enterprise restructuring program -- the first of its kind in China -- would establish a successful model for sustainable forest management and forest enterprise restructuring that could be disseminated to other forests near protected areas in China.

The entire forestry area was to be legally designated as a national level nature reserve, with a core zone of 11,000 ha and an experimental zone of 19,000 ha. The core zone would comprise the main panda habitat and all tree harvesting, road construction, and other human interventions would be prohibited there (the government stopped all these activities on December 1, 1993, in preparation of the project). The project would then support a variety of protection activities for the core zone, and forest resources in the experimental zone would be managed on a sustainable basis. The forest farms would still be permitted to harvest timber in the latter area, but: (a) their annual cut could not exceed the forest's mean annual growth; and (b) new, more environmentally-friendly silvicultural management practices would be introduced that would better maintain the area's biodiversity values. The project would promote more sustainable management of the experimental zone through preparation of a management plan, reforestation of degraded areas, and training and technical assistance in improved silvicultural techniques.

The forest farms' labor force would be restructured in line with the revised cutting program and an estimated 1,193 redundant workers would be either: (i) redeployed to more environmentally-sustainable enterprises under the Forestry Bureau or (ii) terminated with a severance package. The project would finance: (a) sub-loans to develop new employment opportunities for about 1,043 redundant workers at existing and new enterprises; and (b) severance packages for about 150 redundant workers that would cover a tailored combination of worker and family relocation costs, worker re-training and placement costs and livelihood development.

The Capacity Building Component (20 percent of total costs) would strengthen NR technical and managerial skills in biodiversity conservation through development of a national NR training team that would provide about 900 person months of NR operation and management training at the national, provincial, and reserve levels. It would also enhance the capacity of MFO's Division of Nature Reserves (DNR) through: (a) preparation of a national conservation plan; (b) financing computers, office equipment, and related TA; and (c) preparation of a series of biodiversity conservation policy studies.

Finally, it would strengthen the Office of Nature Reserves (ONR) of the Forestry Department in Yunnan Province (YPFD), which contains the largest diversity of species in China, through staff training, the preparation of a provincial nature reserve management plan, and the development of a provincial geographic information system.

The Management Information System Component (8 percent of total costs) would promote improved management decision making at the nine participating nature reserves and strengthen oversight by the provincial nature reserve offices and DNR headquarters by: (a) designing and installing a computerized nature reserve data management system at the nine reserves, three provincial offices and at DNR; (b) procuring computers, software, climatic recording equipment, and other scientific and office equipment to operate the system; (c) providing TA in reserve data analysis and information management; and; (d) supporting a comprehensive monitoring and evaluation program for the NRMP.

The Research Component (4 percent of total costs) would strengthen existing national biodiversity conservation research by: (a) financing research infrastructure and equipment at the five nature reserve groups to facilitate field research; and (b) establishing a new national, competitive small-scale research grants program to encourage additional research activity on priority conservation issues.

3.4 Revised Components:

Four relatively minor changes were made to the project design immediately prior to and/or during implementation. First and most significantly, China's State Council decided, just prior to project effectiveness, that all logging within the Changqing Nature Reserve would cease and the forest enterprise would close, rather than be scaled back. This decision increased the land area in the Changqing nature reserve under strict conservation by 19,000 ha and raised the number of displaced forestry workers from 1,193 to 2,262. Second, during implementation of the enterprise restructuring component, it was decided to test a third, new, worker re-deployment option - transferring workers to enterprises unrelated to the provincial forest bureau under a relocation scheme known as 'job transfer with earmarked capital'. Under this arrangement, the host enterprise would receive a grant towards each worker's housing and training, and the worker would receive a relocation allowance. Third, at the mid-term review in 1998, the plan to establish a biological corridor between the Zhouzhi and Niubeiliang reserves in the Qinling Mountain reserves was dropped because the cessation of all logging in natural forests under the Natural Forest Protection Program was thought likely to achieve the corridor's conservation objective without further action. Fourth, as its closing date approached, the project's duration was extended from six to seven years to facilitate the completion of all its components.

3.5 Quality at Entry:

The project's primary biodiversity conservation and environmental management objective was fully consistent with China's priorities for biodiversity conservation and forest management, and with its priorities for Bank/GEF assistance in the GEF's biodiversity Focal Area. The nine target nature reserves are indeed of global biodiversity significance, so GEF support to them was fully justified.

The project's secondary objectives of promoting forest enterprise restructuring and testing alternative forest worker re-location options did promote more effective biodiversity conservation and identify an effective and fair forest worker relocation model. It also proved highly prescient, because it provided valuable advance experience on how to handle the substantial nation-wide forestry employment impacts of the 1998 natural forest logging ban.

The project's five components linked well to the project objectives and were appropriate for achieving them. The project's scale, technical complexity and implementation schedule were consistent with the capacities of its several implementing agencies'. The project accurately identified and addressed the major shortcomings in management of the nine target nature reserves, and actions to strengthen management at the NR site level were complemented by appropriate capacity building at the provincial and national levels. The project design wisely took account of smaller-scale NGO conservation experience in China, and supplemented this local knowledge by transferring good international practice in nature reserve management.

Strategically, the design recognized the need for the institutional culture of the forest reserve management agencies to change from military-style enforcement to engagement of local communities in co-operative nature reserve management. Technically, the importance for effective nature reserve management of: (a) good baseline scientific knowledge; (b) effective information management; (c) monitoring and evaluation as an integral part of adaptive management; and (d) adequate technical capacity; were all well reflected in the project design. Sufficient and timely technical assistance support and training was provided to develop the needed capacities during project implementation and to promote their replication.

The original project design had three minor shortcomings. (1) The nature reserve level activities were implemented in a strictly sequential order: first staff training; then data gathering and organization; then nature reserve planning; and finally management action. This sequential process was highly systematic, but it meant that approved nature reserve management plans were not produced and management actions not launched until the project's third trimester. A more flexible design and implementation plan would have allowed selective, high priority management actions to address known conservation issues to be taken *before* the full nature reserve planning process was complete, which would have both accelerated conservation action and allowed the NRs to benefit more from international technical assistance in planning and monitoring these initial interventions. (2) The initial project monitoring and evaluation plan did not specify the project's outcome indicators, perhaps because the project was designed before the Bank adopted the logical framework as a project design tool. However, this shortcoming was corrected during project implementation by developing site-level biodiversity and environmental impact indicators and monitoring systems. (3) The original design did not require the development of a financing strategy for replicating project outcomes and experience in other provinces and nature reserves. The resulting scarcity of replication resources has limited replication activities nationally, at the provincial level, and other NR sites.

On balance, the project's quality at entry is judged to be satisfactory, bordering on highly satisfactory.

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

Conservation of Biodiversity

The numbers of keynote species - Giant Panda, Golden Monkey and Golden Takin - are estimated to have

increased in all the eight mountain NRs during the project. Recorded observations of Giant Panda have increased modestly at all the reserves in which they are present. However, the small number of Giant Pandas in each reserve mean this modest increase in sightings is not a scientifically valid indicator of current species numbers or trends. A majority of the mountain nature reserves report significant increases (20-50%) in Golden Monkey and Golden Takin numbers, which strongly suggests that these two keynote species are thriving. Poyang Lake recorded a 10% increase in the number of waterbird species observed between 1995 and 2001 and a 50% increase in the annual number of Siberian Cranes visiting the lake. On balance, the project clearly has enhanced the conservation of biodiversity at the participating sites.

Environmental Status

All the mountain nature reserves reported an increase in vegetation cover from an average of about 90% in 1995 to 95% in 2001. With one exception, the reserves with Giant Panda habitat reported that the scale of this habitat had increased during the project. Most of the reserves also reported a decline in anthropogenic threats to their ecosystems, such as logging, hunting and forest fires. The project has therefore achieved its objective of enhancing the environmental status the participating nature reserves and reducing anthropogenic threats to it.

4.2 Outputs by components:

Strengthening Nature Reserve Management

Highlights: The project established one new 30,000 hectare national-level nature reserve (Changqing NR) by facilitating the cessation of logging at the site and closure of the former Changqing Forest Bureau (the logging company). A second nature reserve (Wuyishan) was successfully nominated as a World Heritage Cultural and Natural Site (WHCNS) with help from the project. A biodiversity corridor linking two formerly separate core zones of the Wuyishan NR (the first such corridor in China) was successfully established, and two forest product industries were relocated outside the corridor, in conformity with the Bank's resettlement OD.

Reserve management and administration. Nature Reserve Management Plans were prepared and implemented by the nine participating nature reserves, by two provincial nature reserve bureaux, and by the State Forestry Administration (the Forestry Sector Nature Reserve System Plan). For the first time in the SFA nature reserve system, these plans were based on an "objectives oriented" approach to nature reserve management planning. This involves the keystone concepts of short to medium-term priority setting, baseline scientific data collection and systematic data analysis, ongoing monitoring of environmental and socioeconomic factors, and iterative updating of plans, action priorities and goals. The ongoing site-based biodiversity and ecosystem monitoring activities on which management plan updates are based cover: (a) the status of target species and habitats; (b) environmental conditions and services (cf. watershed protection, carbon sequestration); (c) the extent and nature of threats to biodiversity (cf. wildfires, poaching, agricultural encroachment, spread of alien invasive species); and, (d) integration of nature reserve management goals with local development plans.

Eco-tourism plans were developed for four of the nature reserves and are being implemented in two reserves (Taibaishan and Wuyishan). These plans have two shortcomings that should be corrected in future eco-tourism planning exercises: (1) they are based on projections of rapidly rising visitor numbers that are almost certainly unrealistic for such isolated sites; and (2) they are not well integrated into either the nature reserve management or local development plans.

Field-level protection systems and investments. Substantial upgrade investments were made in facilities and basic equipment (buildings, computers, vehicles, radios, uniforms, boundary markers, etc.) and in field staff training at the nine participating nature reserves. As a result, the boundaries of the nine reserves are now all clearly marked; sufficient patrol stations and guard posts have been constructed; all field staff have good uniforms and communication equipment; and regular field patrols are conducted that are monitoring and reporting the prevalence of target species, environmental conditions, and threats to species and habitats. Headquarters staff working conditions, and consequently staff motivation and technical performance, have been significantly improved. Laboratory and educational facilities have been upgraded and educational outreach to adjacent communities has been instituted, e.g. by constructing an excellent exhibition center at the Foping Nature Reserve. The GEF has been given very visible credit for co-financing these facilities and investments.

Augmenting community participation in nature reserve management. Community participation in NR management has been successfully piloted and adopted at six nature reserves, and has been endorsed and promoted by their provincial forestry departments and by the SFA. This reflects a "sea change" in the corporate culture and practice of these institutions, which had previously practiced command and control-style NR management. Nature reserve co-management plans were prepared and implemented jointly with a total of eight communities adjacent to the six pilot nature reserves. The communities selected for this experiment were those most heavily dependent on natural resources and which therefore posed the most serious threats to wildlife and natural resources (i.e. the most challenging communities for the NRs to work with). These communities were first briefed on the co-management concept and process and their agreement to participate was secured. Then a participatory rural appraisal was conducted in each community. Based on its findings, a community natural resource management plan and an area land use management plan were drafted, through a participatory process. These plans defined the NRs and community's mutual responsibilities, and the scope and cost of NR-funded natural resource substitution and development assistance that was to be provided as both an incentive and a means to reduce community pressure on NR resources. The assistance was then delivered by the NRs, (such as fuel efficient stoves, agricultural inputs and advice), its delivery was monitored, and its impacts on community attitudes and behavior towards the NRs were evaluated through both community opinion surveys and observations of community behavior.

The "before" and "after" community opinion surveys that were conducted by NR staff confirm that the community co-management process has had positive impacts on both community attitudes and threats to the NRs. In the opinion surveys conducted by NR staff at the beginning of the project, the communities rated their relationship with the nature reserve staff at between 1 and 5 out of a possible 10 (10 being very good). Towards the end of the project, the same communities rated their relationships at between 6/10 and 10/10. All the six NRs reported that community co-management had reduced community-based threats to the reserves.

Community co-management was incorporated into the two provincial level nature reserve management plans that were completed under the project, and into the national Forestry Sector Nature Reserve Management Plan, which covers the entire SFA network of more than 1500 nature reserves. This plan, which is the basis for establishing nature reserve budgets and for integrating reserve plans with local development plans and budgets, now requires all A-level SFA reserves to establish and operate Community Affairs Units, whose job is to engage the local communities in consultative and participatory co-management.

Enterprise Restructuring

Two thousand two hundred and sixty two forestry workers were made redundant by the closure of the Changqing Forestry Bureau. Of that total, 220 transferred to the Changqing Nature Reserve Bureau, 187 chose to return to their home villages with a relocation package, 150 were transferred to other enterprises with "earmarked capital", 150 were employed on the restructuring program, 549 retired, and 1006 initially participated in the "job creation program", of whom 448 have since either retired or transferred to different jobs. Of the 558 workers who were still in the job creation program by mid-2002, 352 were idle, because the two new enterprises that were established and the three existing enterprises that were expanded under the program have all been down-sized recently.

The "job transfer with earmarked capital" was initially the most cost-effective relocation option, at an average cost of US$3,400 per employee. However, a large proportion of the employees who initially chose this option have since been made redundant, because of their limited skills and/or advanced age. Their new companies were unable to finance their social benefits, so they were forced to seek financial assistance from the Changqing and provincial administrations. This was forthcoming and has allowed most of them to maintain their former standard of living.

The average cost per worker of the "relocation package" (retirement with benefits) was US$6,400. Almost all the workers who chose this option are satisfied with their new livelihood and, on average, have been able to sustain or improve their former standard of living.

The average cost per worker of the "job creation program" was US$10,800. About two-thirds of this cost was for enterprise investment loans (see below). By June 2002, only 206 of the 1006 workers who chose this option were still working full time in the enterprises to which they were initially transferred. The other 800 had been laid off. However, those that were laid off have been given relocation packages, including free urban housing, which have cushioned their income loss. Two new state-owned enterprises were created by the program. They received interest-bearing investment loans funded by the project. The loan interest and capital repayments were intended to finance the worker redeployment costs of other forest enterprise closures. While the two enterprises have made some interest payments on their loans, these have funded redundancy packages for their own laid-off workers, not for other displaced forestry workers, as was originally intended. Both enterprises are financially unviable and their assets are for sale at discount prices. Hence it is most unlikely they will be able either to make further interest payments or repay all or even most of their loans. Clearly this redeployment option has been both commercially unsuccessful and the least cost-effective of the three.

The experience of and lessons learned from the forest enterprise restructuring component were thoroughly documented and widely disseminated, and have been extensively applied in the large-scale forest enterprise restructuring program that followed from the natural forest logging ban that was instituted in 1998.

Institutional Capacity Building

At the national level, the project supported the development and delivery of thirteen different NR staff training courses, and produced and published a core nature reserve training curriculum and associated materials that comprehensively address the training needs of the SFA's NR personnel, ranging from field patrollers to reserve managers and to national and provincial level sectoral planners and administrators. The core training curriculum covers patrolling, data collection and reporting; conservation action (including community co-management); and applied biodiversity research. More than 1000 NR staff participated in at least one training course, and 120 nature reserve managers were trained in the principles of management

planning and budgeting, environmental awareness and adaptive management. Plans to establish a core, seven-person SFA Nature Reserve Training Team were abandoned in favor of developing a larger group of part-time trainers who remained attached to their institutions.

At the provincial level, one Nature Reserve Bureau - Yunnan - was targeted for a special capacity-building effort, because of this province's particularly rich biodiversity endowment. Yunnan NRB staff received training and TA support to help them prepare management plans for four of the province's A priority nature reserves and additional nature reserve planning staff were recruited by the bureau.

Through training and equipment upgrading at the nine participating nature reserves, field patrol staff and monitors recruited from local communities were trained in patrolling, basic scientific data collection and reporting. Their work now forms the backbone of the reserves' ecological monitoring and management programs. The project emphasis on training of trainers has significantly increased SFA's capacity to promulgate lessons learned under the project, to the benefit of other reserves within its national system. Based on methods and tools developed under the NRMP, a systematic national training program has been incorporated into the (project sponsored) National Forestry Sector Reserve System Plan (NFSRSP). It addresses future development of the 171 SFA-administered A-level national nature reserves and nearly 1500 other nature reserves established in the forestry sector.

Management Information System

The initial design of this component - a DOS-based integrated system operating at the nature reserve, provincial and national levels - proved to be unstable and too technically complex for NR staff to operate. So the system was re-designed to use the Windows operating system and to operate independently at the three levels, with emphasis on the nature reserve level and provision for the reserves to feed summary information up to the provinces, which in turn report to the SFA. The revised system is now operating in all of the nine pilot reserves, in two provincial forestry departments and in the national SFA/DNR. The system provides database structures to accommodate locality records for important biological elements, land cover information, input from regular monitoring patrols, as well as personnel and financial records. The system has an effective GIS interface that is functioning well in the reserves with GIS capability. At the reserve level, the system is well maintained and actively used for biodiversity and environmental monitoring and adaptive management decision-making.

However, the MIS has not been extended to other SFA Nature Reserves and Provincial Bureau, as was originally hoped. Project funds were used to familiarize a few staff from other nature reserves with the system, but there is no firm plan or funding strategy to extend it to a significant number of other reserves or to expand and develop it at the reserves that are currently using it. In light of this impasse, it is suggested that an evaluation be done of the system's effectiveness and utility for different levels of reserve management. If its conclusions are positive, then a national program should be designed and funded to promote the system's wider adoption. The systems currently in use also require periodic maintenance and enhancement. Given their key role in nature reserve monitoring and management, and the significant cost that has been sunk into them, resources should definitely be provided for this.

Nature Reserve Research

The project financed: (a) six competitively-selected scientific research projects to strengthen baseline information on biodiversity within the project reserves and to identify target species and habitats for conservation planning; and (b) 59 smaller, targeted-research projects, selected through a national competitive small grants program. Much of the initial research focused on inventorying the entire range of

species within the reserves. In retrospect, more emphasis on determining the status, distribution and ecological requirements of target species, and less on making comprehensive species inventories (lists), would have been appropriate. In the opinion of the reserve managers, the small grants were most valuable in addressing specific questions related to reserve management. They were also important in building useful working relationships between the reserve managers, local universities and research institutes. An independent technical review of the small grants program, commissioned by the project, concluded that over 90% of the studies were of high technical quality. Continued national support is therefore warranted for a "problem-oriented" small-grants research program.

4.3 Net Present Value/Economic rate of return:

N/A

4.4 Financial rate of return:

N/A

4.5 Institutional development impact:

The project has dramatically raised the institutional capacity and the operational performance of the nine participating nature reserves, five provincial forestry departments and the State Forestry Administration's Department of Wildlife Conservation to a level that is amongst the highest in Asia. At the nature reserve level, the project has successfully introduced international-quality, objective-oriented and adaptive nature reserve management planning, and has created the staff capacity required to implement this management approach through a well-targeted, high quality training program for nature reserve staff at all levels. With this added capacity, the staff of the nine nature reserves are now rigorously and regularly analyzing reserve conditions, threats and management priorities, and have adopted an outcome-based and flexible approach to planning, budgeting and day-to-day conservation decision-making. In parallel, the project's management information system and research components have provided the systematic biodiversity and environmental information needed for effective monitoring and outcome-oriented planning, and have integrated applied conservation research into the nature reserves' monitoring and management practices. The project has also successfully introduced the concept of participatory community nature reserve co-management in eight pilot communities adjacent to six of the project nature reserves, and has developed the staff capacity and attitudes needed to implement this approach.

The project has significantly improved the technical and management capacity of the five participating provincial forestry departments and the SFA's Department of Wildlife Conservation. Effective nature reserve activity supervision and monitoring systems have been established at both levels and the quality of technical advice provided to the nature reserves has significantly improved - as illustrated by substantive national and provincial inputs to several of the nature reserve management plans. This combination of increased capacity and more effective nature reserve management systems is being replicated modestly by the five participating provincial nature reserve bureaux in their other nature reserves, and has been promoted nationally by the SFA, as reflected in the National Forestry Sector Nature Reserve System Plan. However, resource scarcity has constrained the replication effort to a very modest level.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

Positive:

In several of the northerly nature reserves, slight declines in neighboring rural populations and a shift in market demand away from forest products served to reduce human pressures on biodiversity and natural resources during the project implementation period. These developments improved the context for achieving conservation gains and marginally facilitated achievement of the project's conservation and environmental benefits.

Bank technical specialists and their consultants contributed world-class knowledge of international good practice in protected area management to the design and supervision of the project. This expertise helped the concerned nature reserve staff to learn and apply very advanced nature reserve planning and management approaches. Supervision was particularly rigorous and regular, and was conducted by very experienced Bank staff and consultants.

Negative:

The job creation sub-component of the enterprise restructuring program was seriously hampered by two factors beyond the government's control: (1) most of the forestry workers affected were old and low skilled, so the only job creation options for them were in state-owned enterprises; and (2) these enterprises were significantly affected by the national economic reform process, which fundamentally changed the commercial context in which they were operating and created major new barriers to their success.

5.2 Factors generally subject to government control:

Positive:

The Chinese Government's decision in 1998 to ban all logging in natural forests enhanced the operational framework for the project's nature reserve conservation activities and facilitated their success. As a result of this policy change, natural forest management became almost as strict outside the nature reserves as inside, which helped to reduce conflicts with local stakeholders over the use of NR resources.

All concerned levels of the Chinese Government (the Ministry of Finance, State Planning Committee, State Forestry Administration, participating provinces and nature reserves) were strongly committed to the project, actively promoted its implementation, and provided timely and adequate counterpart funds. In combination, these various levels of government contributed $8.45 million in counterpart funds, nearly 50% more than the $5.7 million projected in the original financing plan.

5.3 Factors generally subject to implementing agency control:

Positive:

SFA's willingness to: (a) learn from international experts in protected area management; (b) adapt and apply their experience to Chinese conditions; (c) encourage its staff to study abroad to improve their knowledge and skills; and (d) collaborate with domestic and foreign conservation agencies through the small research grants program; collectively meant that the project incorporated best local and international protected area management practice.

SFA's institutional arrangements for project implementation were well conceived, and it had the technical and administrative capacity needed to implement the project efficiently and effectively. SFA senior management made the project a high priority and assigned capable and motivated staff to work on it. SFA

management wisely made the Wildlife Conservation Department (WCD) responsible for the project's technical components and the World Bank Project Management Center (PMC) responsible for its financial management aspects. This division of labor accurately reflected the two departments' comparative advantage: the WCD's technical ability to manage the project's technical components and the PMC's considerable experience in Bank procurement and financial management and to provide efficient administrative support. SFA's effective collaboration with its provincial forestry departments and the nature reserve management units also contributed to the project's success.

Negative:

The four nature reserves that agreed to produce eco-tourism plans did not have a clear and common understanding of the eco-tourism concept. Consequently, the scope, content and quality of the first four draft eco-tourism plans varied widely. Subsequently, one draft plan was selected as a model, work focused on its completion, and the other three draft plans were re-written, based on the completed model.

5.4 Costs and financing:

As noted in Annex 2, the project's final total cost was $24.7 million, of which $16.25 million was contributed by the GEF and $8.45 million from Chinese counterpart sources. The GEF contribution was slightly less than originally planned in US$ terms because the grant was originally denominated in SDRs, but disbursed in US$, and the US$ depreciated by almost 9% vis-a-vis the SDR over the project implementation period.

6. Sustainability

6.1 Rationale for sustainability rating:

Overall, the project's sustainability is rated as likely. The sustainability prospects of its individual components are assessed as follows:

Nature Reserve Management. The project's process of developing management plans, including baseline status studies, identification of biodiversity conservation priorities, identification and ranking of threats, commissioning of targeted research, and engagement of local residents in a participatory planning process, has created a strong technical foundation for sustaining the project's biodiversity conservation benefits within the pilot reserves and provinces. Reserve managers now have a clear vision of the principal biological objectives for which the nature reserves are being managed; a monitoring system is in place to measure performance; and an information management system can track key indicators. Adjacent communities are well informed about reserve management plans and objectives and engaged in planning and management processes. Reserve managers and field staff are aware of the linkages and feedback between research, monitoring and management, and of the importance of community participation in both planning and reserve management. Provincial nature reserve managers support the new management procedures introduced at the nature reserve level and are replicating them as rapidly as funds allow. Resources budgeted for each nature reserve for conservation actions, status monitoring, targeted research and management plan updates in 2002/3 are at or above 2001 levels, and the provincial nature reserve bureaux and the SFA seem committed to sustain this level of funding.

Community Co-management. Special attention was paid in the project's design and implementation to the post-project sustainability of this component. A post-project action plan was prepared by each participating nature reserve, which has helped to secure a modest amount of operational funds to sustain

the process. Access to other sources of funds is limited, and the existing village funds are expected to fade away, but the institutionalized co-management partnership has been made part of routine nature reserve operations. The attitude of nature reserve staff to communities has been sustainably improved, and the pilot villages have enhanced capacity to liaise with reserve staff and with local governments. A possible threat to sustainability is the on-going expansion of land areas zoned for stricter natural resource management. The sustainability of the partnership relationship and of the livelihood improvements will depend on the capacity of the nature reserves to make stricter management compatible with the communities' livelihood options. This is an especially important challenge for the protection of ecosystems at lower elevations where population densities are higher.

Enterprise Restructuring. The living standards of all the displaced Changqing forestry workers are both satisfactory and sustainable, thanks to a comprehensive set of enterprise and provincial employment and benefit programs. The two state-owned enterprises created under this component are not viable and are unlikely to survive, but they have served their purpose of providing livelihood safety nets for the former forestry staff. Among the three enterprises that were expanded, one stopped operating in early 2002, and the other two are in an early stage of shifting to new, more viable activities. The two buildings constructed with GEF loans stand idle and empty, and the loan principal that funded them will be repaid. Their initial interest payments have been used to relocate workers made redundant by the recipient enterprises, not to finance job transfers in other nature reserves, as was originally envisaged. However, the availability of relocation funds under NFPP made this plan redundant. In the Wuyishan biodiversity corridor, former bamboo and tea plantations and processing facilities have been sustainably moved outside the corridor. Within the corridor, compatible development, such as eco-tourism services, is being encouraged. However, it is too early to judge the economic sustainability of these new enterprises.

Capacity Building. Assuming adequate resources are provided, which is likely, the newly-created capacity at the nine participating nature reserves for objective-oriented planning, community participation/co-management, environmental monitoring, information management and targeted research will be sustained. The creation of an SFA training team, training manuals, and course curricula for 13 training modules provide a sound basis for sustaining the training program and extending it to other reserves.

Management Information System. The MIS that was developed by the project and implemented at reserve, province and national levels has been recognized as a valuable tool for reserve management at those sites and is thus likely to be sustainable at them. Keeping the system up-to-date with evolving technical standards will require sustained central government funding for system development, technical support and training. In the possible absence of such support, there is a significant risk that the system will slowly become obsolete.

Research. The project's policy research, baseline studies and inventories, and its competitive small research grants (SRG) program have convinced pilot reserve managers of the value of targeted research for conservation problem identification and priority setting. Experience under the SRG program has also demonstrated the value and cost-effectiveness of collaboration with local scientific institutions and contributed to the development of national policy on nature reserve management, as reflected in the NFRSP. These advances are likely to be sustained as reserve managers can access modest targeted research funds for problem solving and periodic independent evaluation of conservation achievements.

Replication. Successful replication was one of the project's explicit objectives. Relative to its modest replication targets, its results are judged to be highly satisfactory. The project's advanced *nature reserve*

planning methods have been widely disseminated within the SFA system, at both provincial and national levels; are being replicated by other nature reserves in the participating provinces; and are embodied in the National Forestry Nature Reserves System Plan. The SFA plans to replicate the process at up to 150 other national nature reserves, but has not yet secured full funding for this program. At all the participating nature reserves, *community co-management* has become an accepted and integral part of their planning and management activity. In Shaanxi Province, the process has been extended to several complex and critical resource use conflicts, such as clarification of land use rights, consultation with State logging enterprises and developers of mass tourism, and cooperation with religious groups. In Xishuangbanna, co-management institutions have been formally established in two counties. The follow-up GEF co-financed Sustainable Forestry Development Project will replicate and refine the co-management process in 13 more national nature reserves and 5 more provinces, and the approach is also embedded in the EU-supported national Natural Forest Protection Program. Other co-management replications will be limited by resource availability. The SFA also has ambitious replication plans for the nature reserves *training program* (350 man-months) and the *Biodiversity Management Information System* (10 new NRs), but, once again, funding has not yet been secured.

Options tested by the project's *enterprise restructuring* component have been widely used by other State logging enterprises, mainly under the Natural Forest Protection Program (NFPP). Based on the project's experience, the NFPP enterprise restructuring strategy shifted from job creation through enterprise development to individual relocation and job transfer with earmarked capital. Of 8,000 Shaanxi Province forestry workers made redundant in 1998 by the ban on logging in natural forests, more than half chose the individual relocation option. Thanks to the NRMP, which solidly established them, the principles of voluntary participation and transparent compensation were widely followed in this process.

6.2 Transition arrangement to regular operations:

Financial resources: In all the pilot nature reserves and provinces, management budgets have been approved for FY03 that maintain or increase FY02 expenditures. *Staffing:* Project implementation was carried out exclusively by regular line staff of the participating nature reserves, the provincial forestry departments and SFA headquarters. Hence the capacity built under the project remains in place, and relatively low staff turnover should ensure its continuity. *Community involvement:* During project implementation, reserve managers gained experience in working with local government authorities and NGOs to secure funds for compatible community development activities. These cooperative programs will likely continue into the future. It is recommended that, in 2004, the Bank staff supervising the follow-on Sustainable Forestry Development Project review the management plans and budgets of 2-3-of the participating nature reserves to assess the extent to which the project's benefits have been sustained.

7. Bank and Borrower Performance

Bank

7.1 Lending:

The Bank's performance in facilitating the project's identification and preparation was fully satisfactory. Bank staff and international consultants helped China select a manageable number of nature reserves of national and global conservation priority to participate in the project. The Bank and its consultants helped the SFA design a challenging but feasible project that accurately addressed the management shortcomings of the participating nature reserves. In essence, the project transferred international good practice in nature reserve management planning (including community co-management), staff skill development, nature reserve data collection and management, and conservation research to China for the first time. Formerly ad-hoc nature reserve management procedures have been replaced with objective-based, scientific, and

adaptive management procedures that the participating NR staff are capable and highly motivated to apply. The outcome is that the conservation status and environmental conditions of the participating nature reserves have been significantly enhanced.

The project's design was fully in conformity with the Bank's environmental and social safeguards policies. Reserve management plans and infrastructure investments made under the project were subject to environmental impact assessment by provincial environmental authorities and mitigation measures, when required, were incorporated into the management plans. Compliance was monitored by provincial environmental authorities. In Xishuangbanna, the only nature reserve with an ethnic minority population, the project design was fully compliant with the Bank's indigenous people's policy.

7.2 Supervision:

The Bank's supervision performance was highly satisfactory, as explicitly confirmed by the SFA. The Bank helped SFA establish rigorous progress reporting and evaluation procedures and fielded regular six-monthly supervision teams with an appropriate mix of technical and administrative skills and good continuity of supervision staff. Effective use was made of technically-qualified local consultants where possible, e.g. to evaluate the information management and research components and provide valuable feedback to SFA project management. Missions enjoyed an extremely close and effective working relationship with the SFA project management unit and excellent cooperation from provincial forestry departments and reserve staff. The MTR was timely and made appropriate recommendations on resource reallocation and adjustments to the methods and time-frame for completing the remaining activities, such as production of eco-tourism plans.

7.3 Overall Bank performance:

The Bank's overall performance in project identification, design and supervision was highly satisfactory.

Borrower

7.4 Preparation:

Preparing such an innovative and technically rigorous project was a major challenge for the SFA. Initially its staff struggled with many aspects of the process. However, from top management to the working level, they displayed a strong commitment and a strong desire and considerable capacity to learn, and ultimately made a significant contribution to the preparation effort. Overall, their preparation performance is rated as satisfactory.

7.5 Government implementation performance:

The Government's implementation performance is rated highly satisfactory. Prior to effectiveness, the State Council designated Changqing a national-level nature reserve and ordered the complete cessation of logging, a more stringent conservation step than the Bank had requested during project preparation. The government provided timely and adequate counterpart funds throughout project implementation. It ultimately financed 27.3% of total project costs, 3.3% more than envisage in the original financing plan. Inter-institutional collaboration was well managed at the national level, as was cooperation among government authorities at the provincial and local levels.

7.6 Implementing Agency:

The performance of the implementing agencies (SFA headquarters, its participating provincial forest

departments and nature reserves) was highly satisfactory. The SFA selected well-trained and highly motivated staff of its Department of Wildlife Conservation to coordinate the project's technical activities and provided them with high level support and clear lines of authority within which to operate. Project financial administration was ably handled by the SFA's Project Management Center. SFA established close and effective working relationships with provincial forestry departments early on and sustained them throughout project implementation. The project's advanced approach to nature reserve planning and management was new to nature reserve staff, and most initially struggled to fully understand the project design and master its rigorous implementation procedures. However, they eventually succeeded in doing this, and significantly upgraded their skills in the process. The SFA and provincial forestry departments have made a major and very successful effort to sustain the project's achievements and a modest attempt (constrained by resource scarcity) to replicate them.

7.7 Overall Borrower performance:

The recipient's overall performance is rated highly satisfactory.

8. Lessons Learned

Overall project design

More parallel, less sequential project activities. The project was implemented in three sequential phases: training, nature reserve planning, and management action. Sequential planning served one intended purpose: to focus attention on training and planning instead of infrastructure building. However, it also limited the duration, the flexibility and probably the impact of the management action phase. Options to consider include (a) starting capacity-building earlier - during project design; (b) differentiating between formal nature reserve plans (which require comprehensive analysis) and informal plans that can be based on existing information, remain flexible, and do not require a formal approval process before implementation can start; and (c) providing site-level technical assistance throughout the project to ensure that processes and activities are strengthened as needed. The first two refinements have been incorporated into the follow-on Sustainable Forestry Development project.

More emphasis on replication. The scope and scale of the replication effort and efforts to raise funds for it were both sub-optimal, as seems often the case in GEF co-financed biodiversity projects. Future GEF co-financed pilot or demonstration biodiversity projects should include a significantly larger replication program and replication budget, and should explicitly require outreach to other the financing sources to mobilize more funds for replication (particularly training), during the latter stages of the project implementation process.

Specific project components

Nature reserve management planning

Initial baseline data collection and analysis should focus on priority species and habitats, rather than a complete inventory, to identify short to medium-term management actions. Comprehensive inventories should be made during the course of management plan implementation.

The planning process needs to be updated and master management plan adjusted every 3-5 years.

Community nature reserve co-management

Community co-management can strengthen nature reserve and natural forest management throughout China. As most NR staff have no previous exposure to community work, pilot co-management activities should be kept simple. As capacity builds up, the nature reserves become able to solve more critical issues with more partners.

Co-management planning must be participatory and involve all key stakeholders to be functionally effective. Reserve co-management objectives and plans must be consistent with local development plans and activities, and preferably should be integrated with them.

Conservation capacity building

Hands-on, in-service training for staff at all levels, from reserve directors to patrollers, is the most effective way of improving motivation, performance, understanding and commitment.

In-service training requires central government financial support, because provincial government funding of recurrent costs is almost invariably inadequate.

Biodiversity information management

Frequent monitoring of target species and key habitats is necessary to practice adaptive management.

Involvement of patrol staff in species and habitat monitoring is both a cost effective and practical way to increase their motivation and understanding of conservation threats, objectives and actions.

Environmental management information systems require recurrent expenditure on their development and technical support to be fully effective.

Targeted conservation research

Targeted research is a cost-effective way of engaging local expertise in developing solutions to nature reserve management problems. However local governments are often unwilling or unable to fund it, so central government should provide funding on a competitive basis to meet priority nature reserve management needs.

9. Partner Comments

(a) Borrower/implementing agency:

See Annex 8 for the Borrower's Input to the ICR.

(b) Cofinanciers:

(c) Other partners (NGOs/private sector):

10. Additional Information

N/A

Annex 1. Key Performance Indicators/Log Frame Matrix

Outcome / Impact Indicators:

Indicator/Matrix	Projected in last PSR[1]	Actual/Latest Estimate
Management and protection infrastructure for the five project sites of global importance in place and functioning	Management plans completed and being implemented. Basic infrastructure constructed and equipment for patrolling, surveying, and monitoring provided and used.	Same as last PSR.
In-service training program developed, tested, and adopted by the State Forestry Administration's training department	Training program being adopted and delivered by State Forestry Administration and course curriculum used by other nature reserves.	Training program completed and adopted by the SFA.
Co-management models developed, implemented, and replicated elsewhere.	Co-management models being applied to other communities living around the nature reserves.	Co-management piloted in 8 villages at 6 NRs and replicated at 11 others. However, the 6 original sites have not replicated their pilot experience in other villages.

Output Indicators:

Indicator/Matrix	Projected in last PSR[1]	Actual/Latest Estimate
Nature reserves management plans completed according to internationally agreed procedures and accepted by the relevant stakeholders	All nine management plans completed and accepted by relevant stakeholders by 06/30/99	Completed, approved, and adopted by provincial and nature reserve stakeholders as the main planning tool.
Pilot reserve co-management models developed, implemented and disseminated.	Co-management models developed, refined, and disseminated to other nature reserves by 12/31/99	Done through a co-management workshop after completion of the co-management models.
Pilot timber enterprise restructuring model developed and applied to other areas	Application of model to other areas in China.	Experiences incorporated in the implementation of the Government's Natural Forest Protection Program which as one of its aim is to restructure forestry enterprises.
In-service training program developed and delivered with 75% satisfaction rating and at least 75% national, provincial, and nature reserve staff skills enhanced	Training program curriculum developed, published, and disseminated to other reserves by 12/31/99	6 training manuals developed, published and disseminated.
Data management system used for nature reserve management and decision making at national and provincial levels.	Suitable data management system in place and producing useful information for management.	Chinese Biodiversity Information Management System has been installed at each project nature reserve, provincial level, and national level and is functioning as intended. There is a plan to extent this to other non-project nature reserves.

[1] End of project

Annex 2. Project Costs and Financing

Project Cost by Component (in US$ million equivalent)

Project Cost By Component	Appraisal Estimate US$ million	Actual/Latest Estimate US$ million	Percentage of Appraisal
Nature Reserves	7.20	6.37	88
Enterprise Restructuring	7.60	10.34	136
Capacity Building	4.40	5.53	126
Management Information Systems	1.60	1.34	84
Research	0.80	1.12	140
Total Baseline Cost	21.60	24.70	
Physical Contingencies	1.00		
Price Contingencies	1.00		
Total Project Costs	23.60	24.70	
Total Financing Required	23.60	24.70	

Project Costs by Procurement Arrangements (Appraisal Estimate) (US$ million equivalent)

Expenditure Category	Procurement Method[1] ICB	NCB	Other[2]	N.B.F.	Total Cost
1. Works	0.00	0.00	3.86	0.52	4.38
	(0.00)	(0.00)	(3.52)	(0.00)	(3.52)
2. Goods	1.71	1.44	1.35	0.52	5.02
	(1.61)	(1.28)	(1.20)	(0.00)	(4.09)
3. Services	0.00	0.00	8.82	0.00	8.82
	(0.00)	(0.00)	(8.82)	(0.00)	(8.82)
4. Recurrent Operating Expenses	0.00	0.00	0.44	3.67	4.11
	(0.00)	(0.00)	(0.44)	(0.00)	(0.44)
5. Changqing Relocation Packages	0.00	0.00	1.20	0.00	1.20
	(0.00)	(0.00)	(0.96)	(0.00)	(0.96)
6. Community Investment Grants	0.00	0.00	0.12	0.00	0.12
	(0.00)	(0.00)	(0.07)	(0.00)	(0.07)
Total	1.71	1.44	15.79	4.71	23.65
	(1.61)	(1.28)	(15.01)	(0.00)	(17.90)

Works include Nature Reserves: Infrastructure and Other components; Changqing Enterprise Construction
Goods include Vehicles; Office Equipment; Field/Research Equipment; and Changqing Enterprise Equipment
Services include Consultancies; Training and Study Tours; and Research Services
NBF : Non-Bank Financing

Project Costs by Procurement Arrangements (Actual/Latest Estimate) (US$ million equivalent)

Expenditure Category	Procurement Method				Total Cost
	ICB	NCB	Other	N.B.F.	
1. Works	0.00	0.00	7.16	0.00	7.16
	(0.00)	(0.00)	(2.83)	(0.00)	(2.83)
2. Goods	0.75	0.67	1.32	0.00	2.74
	(0.75)	(0.67)	(0.99)	(0.00)	(2.41)
3. Services	0.00	0.00	10.92	0.00	10.92
	(0.00)	(0.00)	(7.77)	(0.00)	(7.77)
4. Recurrent Operating Expenses	0.00	0.00	0.36	0.00	0.36
	(0.00)	(0.00)	(0.36)	(0.00)	(0.36)
5. Changqing Relocation Packages	0.00	0.00	3.37	0.00	3.37
	(0.00)	(0.00)	(2.82)	(0.00)	(2.82)
6. Community Investment Grants	0.00	0.00	0.15	0.00	0.15
	(0.00)	(0.00)	(0.05)	(0.00)	(0.05)
Total	0.75	0.67	23.28	0.00	24.70
	(0.75)	(0.67)	(14.82)	(0.00)	(16.24)

Works include Nature Reserves: Infrastructure and Other components; Changqing Enterprise Construction
Goods include Vehicles; Office Equipment; Field/Research Equipment; and Changqing Enterprise Equipment
Services include Consultancies; Training and Study Tours; and Research Services
NBF : Non-Bank Financing

[1/] Figures in parenthesis are the amounts to be financed by the Bank Loan. All costs include contingencies.

[2/] Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Project Financing by Component (in US$ million equivalent)

Component	Appraisal Estimate			Actual/Latest Estimate			Percentage of Appraisal		
	Bank	Govt.	CoF.	Bank	Govt.	CoF.	Bank	Govt.	CoF.
Nature Reserves	6.07	1.89		5.13	1.24		84.5	65.6	
Enterprise Restructuring	4.80	3.17		3.85	6.48		80.2	204.4	
Capacity Building	4.33	0.53		5.40	0.13		124.7	24.5	
Management Information Systems	1.90	0.05		1.30	0.04		68.4	80.0	
Research	0.80	0.10		0.56	0.56		70.0	560.0	
TOTAL	17.90	5.74		16.24	8.45		90.7	147.2	

Annex 3. Economic Costs and Benefits

Not Applicable.

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating	
			Implementation	Development
Month/Year	Count	Specialty	Progress	Objective
Identification/Preparation*				
3/92	*9*	1FS, 2EC, 1SNS, 1ECO, 1NREC, 1MS, 1ReS, 1IMS		
11/92	*6*	2FS, 2EC, 1ECO, 1MS		
5/93	*5*	1EC, 1FS, 1ECO, 1FA, 1SE		
Appraisal/Negotiation				
11/93	*5*	1EC/ML, 1ECO, 1SE, 2EC		
8/94	*3*	1EC/ML, 1ECO, 1OA		
Supervision				
8/95	*2*	1EC/ML, 1ECO	S	S
6/96	*2*	1EC/ML, 1ECO		S
5/97	*2*	1EC/ML, 1ECO	HS	HS
10/97	*3*	1ECO/ML, 1BS, 1OO		S
3/98	*4*	1ECO/ML, 1OO, 1DO, 1EC		HS
9/98 (Mid-Term)	*6*	1ECO/ML,1SPOO, 1S,1WB,1FE	HS	HS
2/99	*4*	1ECO/ML, 1BS, 1M&E, 1TA	HS	HS
6/99	*3*	1ECO/ML, 1BS, 1SPOO	S	HS
1/00	*3*	1ECO/ML, 1DO, 1PO	HS	S
3/00	*3*	1ECO/ML, 1M&E/ES, 1TS	S	S
6/00	*2*	1ECO/ML, 1M&E	S	S
11/00	*5*	1ECO/ML,1DO,1PO, 1RS, 1SDS	HS	S
6/01	*4*	1ECO/ML, 1RS, 1BS, 1EC	HS	S
12/01	*4*	1ECO/ML, 1RS, 1PS, 1BS	S	HS
3/02	*2*	1ECO/ML, 1BS	HS	HS
ICR				
6/02	*3*	1GEF RC/ML, 1BS, 1SS		

Note:

*Identification/Preparation Missions were part of China Forest Resource Development and Protection Project (FRDPP) missions.

BS: Biodiversity Specialist; **DO**: Disbursement Officer; **EC**: Economist; **ECO**: Ecologist; **ES**: Environment Specialist; **FA**: Financial Analyst; **FE**: Forest Economist; **FS**: Forestry Specialist; **GEF RC**: GEF Regional Coordinator; **IMS**: Information Management Specialist; **ML**: Mission Leader; **M&E**: Monitoring & Evaluation Specialist; **MS**: Marketing Specialist; **NREC**: Natural Resource Economist; **OA**: Operations Analyst; **OO**: Operations Officer; **PO**: Procurement Officer; **PS**: Procurement Specialist; **RS**: Resettlement Specialist; **ReS**: Research Specialist; **S**: Sociologist; **SDS**: Social Development Specialist; **SE** : Socio-Economist; **SNS**: Seed Nursery Specialist; **SPOO**: Social Policy Operations Officer; **SS**: Social Scientist; **TA**: Team Assistant; **TS**: Training Specialist; **WB**: Wildlife Biologist

(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	
	No. Staff weeks	US$ ('000)
Identification/Preparation*	49.60	176.00
Appraisal/Negotiation	26.50	89.30
Supervision	96.88	445.30
ICR	*9.55	*42.59
Total	*182.53	*753.19

*Estimate figure.

Annex 5. Ratings for Achievement of Objectives/Outputs of Components

(H=High, SU=Substantial, M=Modest, N=Negligible, NA=Not Applicable)

	Rating
☐ *Macro policies*	○ *H* ○ *SU* ○ *M* ○ *N* ● *NA*
☐ *Sector Policies*	● *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☐ *Physical*	○ *H* ● *SU* ○ *M* ○ *N* ○ *NA*
☐ *Financial*	○ *H* ○ *SU* ● *M* ○ *N* ○ *NA*
☐ *Institutional Development*	● *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☐ *Environmental*	○ *H* ● *SU* ○ *M* ○ *N* ○ *NA*
Social	
☐ *Poverty Reduction*	○ *H* ○ *SU* ● *M* ○ *N* ○ *NA*
☐ *Gender*	○ *H* ○ *SU* ○ *M* ● *N* ○ *NA*
☐ *Other (Please specify)*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*
☐ *Private sector development*	○ *H* ○ *SU* ○ *M* ○ *N* ● *NA*
☐ *Public sector management*	○ *H* ● *SU* ○ *M* ○ *N* ○ *NA*
☐ *Other (Please specify)*	○ *H* ○ *SU* ○ *M* ○ *N* ○ *NA*

Annex 6. Ratings of Bank and Borrower Performance

(HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HU=Highly Unsatisfactory)

6.1 Bank performance	*Rating*
☐ *Lending*	○ *HS* ● *S* ○ *U* ○ *HU*
☐ *Supervision*	● *HS* ○ *S* ○ *U* ○ *HU*
☐ *Overall*	● *HS* ○ *S* ○ *U* ○ *HU*

6.2 Borrower performance	*Rating*
☐ *Preparation*	○ *HS* ● *S* ○ *U* ○ *HU*
☐ *Government implementation performance*	● *HS* ○ *S* ○ *U* ○ *HU*
☐ *Implementation agency performance*	● *HS* ○ *S* ○ *U* ○ *HU*
☐ *Overall*	● *HS* ○ *S* ○ *U* ○ *HU*

Annex 7. List of Supporting Documents

The following documents are in the Project File and copies are available upon request:

1. Activity Initiation Brief (January 29, 1992)
2. Feasibility Study (for) GEF China - Nature Reserves Investment Program (9 September 1993)
3. Minutes of Technical Review Panel Meeting (October 8, 1993)
4. Initial Project Information Document (February 23, 1994)
5. Final Executive Project Summary (January 24, 1995)
6. Summary of Negotiations (April 3, 1995)
7. Memorandum and Recommendation of the President (May 12, 1995)
8. GEF Project Document (Report No. 14013-CHA, May 1995)
9. Signed GEF TF028301 Grant Agreement (July 18, 1995)
10. Signed Amendment to GEF TF028301 Grant Agreement (November 26, 1996)
11. Signed Reallocation of Grant Proceeds (December 11, 1997)
12. The Follow-up Impact Study Report of the Relocation Program (with Case Study) (Ministry of Forestry, December 1997)
13. Follow-up Impact Study Report on Relocation Program Under NRMP in Shanxi Province (He Pikun, Academy of Forest Reconnaissance and Design in Yunnan Province, December 1997)
14. The Second NGO/Donor Meeting Documents (Ministry of Forestry, February 26, 1998)
15. Mid-Term Review Mission Report (November 2, 1998)
16. Operation Guidelines for Changqing Sub-loan Revolving Fund under GEF NRMP Project (Revised on February 5 and translated on February 10, 1999)
17. ICR Mission Documents (June 2002)
18. Mission Documents (Terms of Reference, Back to Office Reports, Supervision Reports and Aide Memoires) from 1993 to 2002
19. Project Audit Reports
20. Project Correspondences
21. Project Implementation Plans
22. Project Supervision Reports (PSRs - formerly Form 590s)

Additional Annex 8. Borrower's ICR Input

3. Assessment of Development Objective and Project Design

3.1 Original Objective

The main objective is to enhance biodiversity conservation through innovative approaches to organization, planning, skills development, information management, and the integration of local communities into reserve management. The main focus will be on developing skills, human resources, and systems for improving protection and management at the field level.

GEF-CNRMP is reasonable and its targets are definitive. Also, the Project fits China's situation, adopted means are advanced and technical assistance is in time. Five components of the Project have produced high quality and demonstrative outputs. The objective is very important for China's biodiversity conservation, which have influenced and motivated country's related policies. In order to fulfill the objective sets of methods and models for nature reserves management have been found.

The Project objectives were consistent with China's priorities and the World Bank Country Assistance Strategy (CAS) at the time of project preparation, appraisal and grant approval (1993-1994).

3.2 Revised Objective:

The original objective remained unchanged throughout the project life.

3.3 Omit

3.4 Revised Components:

According to the suggestions of mid term evaluation and changes of the exchange rate, about 15 project activities have been adjusted, such as biological corridor and the hydro power station. The adjusted activities were mainly civil works.

3.5 Quality at Entry

Quality at entry was judged to have been "satisfactory". The project activities were designed according to the objective. The activities were designed reasonable and closely related to the objective. Some parts such as management plan and national conservation plan have not fulfilled the designed objectives because the situations have not been considered thoroughly in the designing period.

4. Achievement of Objective(s) and Outputs

4.1 Outcome/achievement of objective:

Overall the project produced highly satisfactory results. 95% of the project activities have been finished and reached the proposed objectives. Due to lack of experience for project implementation, the development and implementation of management plans have been postponed. Because changes of exchange rate, the amount of funds were decreased and affected parts of the project activities. Such as some of the civil works have to be canceled. The project has been extended one year. Through the effective management of the World Bank and the Chinese Government and under the support of World Bank and local experts, the project has been implemented smoothly. The grant fund and counterpart fund have been provided in time and thus guaranteed the completion of all project activities by June 30 2002.

4.2 Outputs by components

(a) Plans development. This part can be rated as "highly satisfactory". It contains several plans such as Nature Reserve Management Plan (NRMP), Eco-tourism Plan, Forestry Sector Nature Reserve System Plan and Yunnan Provincial Conservation Plan. Among them, 13 Nature Reserve Management Plans were developed by 9 project nature reserves and four A-level nature reserves in Yunnan province. NRMP is a

kind of pool of objective-oriented practicable countermeasures. It is the first time in China to introduce such short-term plan into reserve management. Also, NRMP's objective-oriented approach and priority activities that were based on the results of great deal of research and survey as well as designed for physical issues have enriched and consummated reserve management strategy. Although the development and implementation of the management plan have been delayed and thus affected their functions, NRMP has great effect and influence on reserve objective management and quantitative assessing. Eco-tourism Plan, Forestry Sector Nature Reserve System Plan and Yunnan Provincial Conservation Plan are all first trial in related fields. The effectiveness proves significant. Moreover, objectives and contents of Forestry Reserve System Plan have been integrated into National Wildlife and Nature Reserve Construction Project.

(b) Field patrol. This part can be rated as "highly satisfactory"Patroller training and examining regulations were established, field equipment was collected and, patrol transects designing, standard of data collecting were regulated. These efforts make the field patrol quantitative, checkable, extendable and deeply affectable.

(c) Monitoring and Evaluation System (M&E System). This part can be rated as "satisfactory" The system covers two facets. One includes monitoring on the Project itself and on biological, socio-economical condition in reserves. Another refers establishment of a series of regulations, rules, means and approaches. Gamut monitoring on the Project ensured implementer to master process of the Project, existing problem so as to solve these problems on time. Reserves developed their own M&E Plans to monitor key biological resources and socio-economic activities and to provide authority dynamic data. Besides different monitoring methods that include daily patrolling conducted by trained patrollers who have to fill the Occasional Observation Data Sheet, fixed transects monitoring and specific inventory, indicators selection, check rules and data analyzing guarantee the M&E being implemented smoothly and effectively. As one of direct outputs of the Project, M&E system has been adopted by Master Plan which is for national nature reserve and financial support will be placed for future construction.

(d) Co-management with local community. This part can be rated as "highly satisfactory" The program was carried out in 8 pilot communities in 6 project reserves. Proposed objectives have been fully accomplished. Meanwhile, the methodology that local inhabits participate conserving wildlife resources and the reserve involves in managing communities' resources enlarges range of reserve management as well as makes soundly connection with local socio-economics for reserve itself. Based on the CRMP, community investment grant (CIG) was established. The CIG program implemented profit-producing activities by supporting non-natural resources-consuming economic activities that were accordance with sustainable using of natural resources so as to encourage communities' development. Depended on pilot communities' basic condition, each reserve developed various co-management activities and programs. Positive long-term cooperative relationship between reserve and local community has been established and thereafter provide other non-pilot reserves a good example.

(e) Training and skill development. This part can be rated as "highly satisfactory" Training program conducted a series of actions like trainer's overseas training, evaluation on training needs, development of training plan and financial managers' training. Also, the program held 13 categories training courses which covered field patrol, co-management, plan developing and 1036 man times got trained. The training program caused in-job training for reserve managers of forestry sector directly. Cooperated with Department of Staff Resources of SFA, the program began to train main managers of national nature reserves. By the end of the project, more than 120 managers have been trained. Moreover, training network has been formed which covers three levels of central, provincial and nature reserve. Sub-trainers in reserves can undertake training independently and some of them can provide service for other project as experts. By implementing the project, Yunnan ONR enrolled 10 more staff and 8 qualified staff form project

organizations got financial support to study master and doctor degrees. Furthermore, 15 persons took part in short-term training in the subject of computer and foreign language and 5 overseas study tours were completed. All these activities improve staff's ability enormously.

(f) Community conservation education (CCE). This part can be rated as "highly satisfactory" The project reserves developed CCE plans and carried out kinds activities. Based on gained experience, refreshed CCE activities aimed at local inhabits and tried to find out cut-point relevant to local people's life. Developed Guideline for Community Conservation Education and various kinds of conservation education materials such as VCD, photos and publicity pictures. By implementing CCE activities, local people's public awareness on nature and wildlife conserving was enhanced. Also, the activities fostered regulation developing of wise use on community natural resources. A set of approaches created by the program formed basis for future extending to other reserves nationally.

(g) Scientific research and small research grant. This part can be rated as "satisfactory". The Project has financed 6 programs of reserve scientific research with amount of 59,814 USD and financed 59 programs of competitive SRG since 1996 with total amount of 2.692 million CNY (about 325,121 USD) as well as average of 45,627 CNY for each program. SRG covered 31 provinces, 3 metropolitans and 50 reserves. Although the investment amount was not large, the SRG indeed produced enormous impact and several dozen papers were published. Meanwhile, the scientific research programs that were financed by the Project influenced future direction of reserve research, that is, shifted to conservation-oriented application research. Moreover, the mechanism that contains program evaluating, procedure of finance allocating, program supervising and so on was established. The mechanism and its contents form sturdy model for future extending and applying.

(h) Information Management System. This part can be rated as "highly satisfactory".This component includes China's Biodiversity Information Management System (CBIMS) and GIS. CBIMS is a kind of computerized database that covers biodiversity information and simple geographic information inquiry. Adjustment was conducted after mid-term evaluation and the final version was completed at the end of August 2001. By now, the CBIMS was installed and operated in all pilot reserves and some provincial forestry departments (PFD). GIS program mainly focused on providing software, hardware and staff training for DWC of SFA, Yunnan PFD and Wuyishan nature reserve of Fujian province. In the field of data management, the program has not only fulfilled specialty requirement, but also offered assistance for reserves' routine management so as to enhance management quality largely for reserves. On CBIMS, it is planned to extend to nation wide especially in national nature reserves.

(i) Basic Infrastructure. This part can be rated as "highly satisfactory".To the end of year 2001, most of the planned items have been completed. Due to exchange rate, the amount of funds was decreased and few civil works have been canceled or have not been finished according to the original plan. By financing basic infrastructure in reserves, the Project improves working condition and circumstance for reserve staff and thereafter functions very well for natural resources conservation. Key items, like field protection infrastructure and equipment, covering patroller field kits, communication tools and establishing of guard posts, improve working condition for field patrollers. All these infrastructure and equipment have been used widely in pilot reserves and also offer good guidance for those non-pilot reserves.

(j) Restructure of former forestry enterprise. Through implementing the Project, a new reserve—Changqing national nature reserve—has been established and is fully staffed and operational in the area of ex-forestry enterprise. Changqing forestry bureau (the former forestry enterprise) has been dissolved and commercial logging completely stopped. Redundant enterprise staff and workers were relocated. by implementation of three programs including the Worker Relocation Package Program, the Job Transfer with Earmarked

Capital and the Job Creation Program. The restructuring and relocation program played very important role in procedure of establishing Changqing national nature reserve and, provided worthy experience for designing and implementing of China's Natural Forest Protection Project.

(k) Biological corridor. This part can be rated as "satisfactory". It is the first trial in China. Original plan contained two corridors, among which, one corridor that located between Zhouzhi and Niubeiliang reserves in Shaanxi province was cancelled after mid-term evaluation because the launched Natural Forest Protection Project in Shaanxi had the same role and function as the corridor's. Therefore, some fund was reallocated to another corridor which connected three core areas between Fujiang Wuyishan nature reserve and Jiangxi Wuyishan nature reserve. The program included tea garden and bamboo forest compensation, same acreage of bamboo forest restoration outside the corridor, bamboo processing workshop movement and all activities were fulfilled in the year 2001. According to monitoring results, the corridor achieves the proposed targets.

4.3 Net Present Value/Economic rate of return: Not applicable

4.4 Financial rate of return: Not applicable

4.5 Institutional Development Impact(s)

Through the implementation of the project, Department of Wildlife and Plant Conservation of SFA and related provincial forestry departments have greatly improved their ability on managing staff, fund and equipment.

Appointed full time staff for DNR of the Department of Wildlife and Plant Conservation, SFA in charge of community co-management, training, management plan development, information management and monitoring and project management, etc. These staff still works in the DWPP after the project was finished and they are very efficient. Additional staff were recruited to Yunnan ONR whose staff number have now increased from 3 to 13, necessary equipment for the project implementation were also procured. Set up new sectors for nature reserve affairs in all CNRMP nature reserves. These sectors still remain and functional after the project finished. Setup database and GIS in State Forestry Administration and Yunnan ONR. Management levels have been improved to modern standard. The three policy studies:"policy study on anti-poverty in community within and contiguous to nature reserve", "study on nature reserve investment system"and "study on personnel incentive system for nature reserve" supported by the project have been finished, conclusions and accomplishment of which have been integrated into National Forestry Nature Reserve System Plan. The results have also been used for decision making. The final draft of National Forestry Nature Reserve System Plan have been finished in March, 2001, and were integrated into official wildlife and plant conservation and nature reserve construction project by SFA.

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of the government or implementing agency:

The World Bank developed the Project Document according to the Grant Agreement in the early stage of the project implementation to clarify objective, contents and procedures of project implementation. A number of guideline and regulations for supervising the project have also been developed according to the Project Document. These standard files have played very important role in project implementation. The World Bank organized supervision missions consists of World Bank officials, international and local consultants to supervise the project regularly. The aide-memoires and consultant reports have supervised and standardized the project implementation.

5.2 Factors generally subject to government control

Government paid great attention to the project implementation and ensured the counterpart fund available in time. Management mechanism from central government to provincial and nature reserves had been established. Sets of regulations and guidelines for project implementation had been developed. A group of high quality staff were appointed to project implementation and thus guaranteed efficient and high quality project implementation.

The project financing is as follows:

Project Financing by Component (in US$ million equivalent)

Component	Appraisal Estimate			Actual/Latest Estimate			Percentage of Appraisal		
	Bank	Govern-ment	Co-financier	Bank	Govern-ment	Co-financier	Bank	Govern-ment	Co-financier
Nature Reserves	6.07	1.89	-	5.13	1.24		84.5%	66%	
Enterprise Restructuring	4.8	3.17		3.85	6.4848		80%	205%	
Capacity Building	4.33	0.53		5.4	0.13		125%	25%	
Management Information Systems	1.9	0.05		1.3	0.04		68%	80%	
Research	0.8	0.1		0.56	0.56		70%	560%	
Total	17.9	5.74		16.24	8.4548		90.7%	147%	

5.3 Factors generally subject to implementing agency control

The World Bank developed project framework, Project Document, project implementation requirement. Project objectives, contents have been clarified. Implementation of each project should be based on plan, the procedure was planning, examination, approval, summary and report. Guidelines of Community co-management, SRG, Community Environment Education, M&E have been developed, in which the contents, requirements, objectives and approval procedures have been clarified, so the project could be implemented according to standard procedures. Insisted on a series of reporting regulations such as monthly, semi annual, annual reports and supervision and evaluation system, so that World Bank and related administrated units could understand the status of the project, such as problem, experiences, lessons learned and take measures to solve problems and facilitate project implementation. Introducing of technical assistant experts had ensured the scientific standard of the project.

5.4 Limited Factors

This kind of project is the first time to be implemented in China and lock of relevant experiences to use for reference, and the project has not closely integrated with nature reserve's daily management in the early stage of project implementation. Ability of nature reserve staff is uneven, the nature reserves is in poor conditions with limited equipment and infrastructure. Designing of a few parts were not very suitable such as some scientific research equipment purchased for nature reserves were not suitable for research levels of nature reserves and have not been used frequently. Due to software problem, the original BIMS was not stable. Fewer experts invited have not fulfilled their responsible and affected some project activities' implementation. Due to exchange rate problem, the amount of fund was reduced and caused parts of the project haven't completely finished, including some of the nature reserves civil works and some enterprise construction of Changqing Forestry Enterprise Restructuring Project.

5.5 Costs and Financing

The GEF financed Nature Reserve Management Project (NRMP) was launched in July 1995. Till the end of March 2002, the total investment came to 200.59 million RMB Yuan, ($24.27 million equivalent) for the whole project, including 11.51 million SDR ($15.82 million equivalent) for GEF grant. To the end of the project, it is expected that the investment of GEF grant will be 16.24 million US Dollar, the counterpart fund will be 69.92 million RMB Yuan or 34% of the total cost.

6. Sustainability

6.1 Rationale for sustainability rating

The sustainability of the project is considered as "highly likely" because of the following reasons. Through implementation of the project sets of management mechanism have been established from the central to provincial governments and nature reserves. Management staff has been allocated and efficiency of management has been greatly improved. Extension and continuation of the project outcomes has been supported by both central and local government. For example the community co-management has been required to conduct by SFA. Meanwhile by the implementation with the start up of "Wildlife Protection and Nature Reserve Construction Project", sets of policies and regulations has been set up. Funding resources and technical support will be guaranteed and thus ensured the sustainability of the project outcomes.

6.2 Transition arrangement to regular operations

6.2.1 As the project has come up with a series of methods and mechanism on training, patrolling, plan development, community co-management and information management, the main activities to be carried out during the transition period of the two years after the project completion including the following projects. Extension training courses on nature reserve management skills mainly provide training for key staff of 150 nature reserves. Improving patrolling ability project mainly chooses 30 typical nature reserves to practice and learn from methods and experiences of patrol from the project and to further enhance the nature reserve patrol system. CBIMS improvement and extension mainly select 10 project nature reserves and 10 non-project nature reserves to test, improve and extend CBIMS. Explore the ways of combined nature reserve management plan and master plan mainly select 10 project and 10 non-project nature reserve to enhance combination and effective implementation of these two plans. Develop eco-tourism plan in 5 project and 5 non project nature reserves and based on these plans to develop guideline and manual for China's nature reserve eco-tourism plan development.

6.2.2 Regarding the arrangements of Changqing forestry enterprise reconstruction, firstly, implementation of reduction of the redundant workers and staff to release the financial burdens of the enterprises. Lessons from the previous Worker Relocation Package Program should be learned in implementation of the future worker relocation program by means of the relocation package or workers seeking the employment on their own to relocate other idled workers and staff. Secondly, Carrying out enterprise restructuring to address the financial difficulty by various methods

7. Bank and Borrower Performance

Bank

7.1 Preparation

The Bank's preparation was considered "highly satisfactory". The World Bank developed project framework, Project Document, project implementation requirement. Project objectives, contents have been clarified. Implementation of each project should be based on plan, the procedure was planning, examination, approval, summary and report. The World Bank developed the Project Document according to the Grant Agreement in the early stage of the project implementation to clarify objective, contents and procedures of project implementation. A number of guideline and regulations for supervising the project

have also been developed according to the Project Document. These standard files have played very important role in project implementation.

7.2 Supervision:
The Bank's supervision was considered "highly satisfactory". The World Bank organized supervision missions consists of World Bank officials, international and local consultants to supervise the project regularly during the project implementation. The supervision were efficient; requirements and comments could be provided and put into aide-memoire whenever problems were founded. The aide-memoires and consultant reports have supervised and standardized the project implementation. These efforts have ensured a high quality implementation of the project.

7.3 Overall Bank performance:
The Bank's performance was rated as "highly satisfactory" throughout the preparation and implementation. In the course of the implementation, in particular in the early part, the Bank has provided the urgently needed assistance and guidance with procurement contract preparation and several other technical issues. The recipient highly appreciated this assistance's.

Borrower
7.4 Preparation
The Preparation of the project was rated as "highly satisfactory". During the 3-year preparation, Chinese Government paid great attention to the project and provided necessary support included the counterpart fund for project preparation. Mechanism for project preparation and experts group had been set up in State Forestry Administration. Sets of regulations and relevant documents had been prepared. 50 A level nature reserves were selected in year 1991. China's Biodiversity Conservation Action Plan was developed in 1992 and the China's Biodiversity Conservation Forestry Action Plan was issued in 1993. GEF Offices in central and provincial government had been established in 1995. Operation and counterpart fund had all been guaranteed before the project implementation.

7.5 Government implementation performance:
The Government of Implementation performance was rated as "highly satisfactory". The State Planning Committee, Ministry of Finance and provincial governments all ensured the counterparts funds. Some parts have more counterpart fund than planned. The total counterpart fund was 5.7 million USD, but the total counterpart fund reached 8.45 million USD, finished 148% of the planned budget.

7.6 Implementing Agency:
The performance of the implementation agency was rated as "highly satisfactory". Project Office has been established in central, provincial government and nature reserves. High quality management staff has been allocated and technical expert team had also been established. The GEF Project cooperated closely with PMC to organize, monitoring and supervise the project implementation. The planned project activities have been finished satisfactorily.

7.7 Overall borrower performance:
Although the project completion date was postponed one year, the overall performance of the borrower has been rated as "highly satisfactory".

8. Lessons Learnt
This kind of project is the first one to be implemented in China, the outputs and experiences will be valuable for future's biodiversity conservation in China.

8.1 Stable institution and staff guarantee the project implementation

From the project preparation phase, SFA, provincial governments and implementation units have established leading group responsible for the project organization and coordinate. GEF Office in each level has been set up and management staff was allocated. Because the project is very complicated and needs specialty knowledge, each project has appointed high quality staff and made sure the institution and staff stable. These guarantee the continuity of work and smooth project implementation.

8.2 Exchange and study among project implementation units

SFA and provincial forestry department held project meeting regularly to provide good chance for implementing units to exchange ideas and learn from each other. Advanced knowledge and experiences on nature reserve management have been learned from oversea study tours. Project trainers were experts and professors from universities and research institute, they have introduced lots of advanced knowledge and skills on nature reserve management to staff of the project. Training courses held in different nature reserves have provided good opportunities for staff from different project nature reserves and non-project nature reserve to exchange ideas and learn from each other. In this way enthusiasm of trainees have been increased and contents of study have also been enriched.

8.3 Technical guarantee from consultants and experts

During the project implementation, many experts were invited to participate in the project design, supervision and consultation. These experts have brought new ideas, concepts, and methods to nature reserves. Many guidelines were produced and lots of consultations were conducted. All these guaranteed smooth implementation of the project. These consultants always regard work as the first important thing. They were preciseness, respect impersonality. For example, they put forward the 'problem tree' method, first find out threatens and constrains to nature reserve, than proposed possible countermeasures and finally decided measures to be taken. This can avoid the problems of doing things by guess in our old planning process. Technical assistance consultant work hard and easy to cooperate, they enjoy and respect their work. In order to get first hand information they often go deep into remote places and set up good examples for reserve staff. Their spirit is very good for project implementation.

8.4 Reimbursement system in financial management

Reimbursement system is a new finance system, the general principle is carrying out project first and gets reimbursement when project has been finished and approved. SFA has formulated an integrated reimbursement procedure, which consists of three management rules. There were clear requirements for province and nature reserve reimbursement, so the quality of the project can be guaranteed. Especially there was a comprehensive management rule for management of civil works, so the problems of "appropriate funds" such as insufficient supervise can be avoided. This system provides a condition for high quality projects. Reimbursement system has been introduced into some national key project such as Chinese Natural Forest Project and Restoring Forest from Farmland project.

8.5 Establishment of regular supervision system.

Regular supervision system has been established. There were World Bank supervision missions every half a year from the beginning to the end of the project implementation. The mission includes local and international experts and officials of SFA. The mission conducted comprehensive examination and prepared aide-memoire. Comments were given on project overall progress and management. Suggestions were given regarding problems appeared during project implementation. In this way the project has been implemented smoothly.

Standard project nature reserve M&E system has been set up. SFA issued guideline of M&E plan, in which contents, indicator, and frequency have been clarified. Project units have developed their own M&E plan and carried out monitoring on schedule. Project nature reserves submitted M&E sheets and reports to SFA in time.

Project used three kinds of evaluations, that is project preevaluation, mid-term evaluation and final evaluation. The pre evaluation in 1994 finalized the objectives of the project; the mid-term evaluation in 1998 made a periodical evaluation for the first part of the project. The mid-term evaluation corrected some mistakes and made some adjustment for some projects that were not appropriate. The final evaluation in 2001 was a comprehensive summary and evaluation for project implementation. Integrity of the project implementation was obvious.

8.6 "Comparisons of price quotations solicited from at least three qualified suppliers" is an effective method for procurement.

The project needs to purchase a large amount of equipment. The World Bank has very strict rules for procurement. First should develop procurement plan according to the types of goods. Procurement should base on real needs of work to avoid waste. Comparisons of price quotations solicited from at least three qualified suppliers. Each supplier should provide brand, price, quality insurance etc. Goods purchased in this way have generally meets the requirements of the project. In the early stage of the project implementation, all contracts for goods used bid package method, there were problems like waiting a long time for goods and no guarantee for the quality of the goods. Project use "three quotations" method, goods can available on time and the quality can be guaranteed.

8.7 Establishment of standard project documents was a good way to show outcomes of the project.

Implementation of GEF project in China was a complicated system engineering. Sets of guidelines and related documents for supervising the project implementation have been produced. SFA, project provinces, region and county government and provincial forestry department has issued many documents. The World Bank, SFA and experts have go to project units for supervision and observation. Many aide-memoires, consultant reports, pictures, videos have been produced. Project units have developed many reports, report forms and inventory materials. The project have funded many infrastructure, equipment and produced many maps. In order to make good use of these useful materials for a better implementation of the project, project nature reserves paid close attention to collection and organize of the these materials and have set up standard project archives to show projects outcomes.

IMAGING

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